HT 169
C3 L43
G45
1981

NOTE

All persons making use of this publication are reminded that it has been prepared for the convenience of the public and that the original bylaw(s) should be consulted for all purposes of interpreting the General Municipal Plan. It is recognized that the Town of Leduc General Municipal Plan has no force and effect beyond the Town's boundaries.

ACKNOWLEDGEMENTS

The Town of Leduc General Municipal Plan program was initiated by an agreement between the Town of Leduc and the Edmonton Regional Planning Commission.

The General Municipal Plan staff was greatly assisted in the preparation of background reports and the General Municipal Plan document and bylaw by the Town of Leduc Council and General Municipal Plan Committee. Their comments and criticisms were always instructive and their continuing support was very satisfying.

The Town and General Municipal Plan staff greatly appreciated the excellent work of the Population Research Laboratory of the University of Alberta under the direction of Dr. Leslie Kennedy and Dr. Dennis Stokes. The comprehensive community survey questionnaire which they designed and administered to three hundred and sixty-five Leduc households was invaluable in the preparation of the General Municipal Plan.

TOWN OF LEDUC MUNICIPAL COUNCIL

William Lede	Mayor 1967-1980
Oscar J. Klak	Mayor
Timothy Auger	Councillor
William A. Bell	Councillor
Maurice Fitzpatrick	Councillor
Robert G. Guebert	Councillor
Norman E. Hartfelder	Councillor
Elsie Johns	Councillor

TOWN OF LEDUC GENERAL MUNICIPAL PLAN COMMITTEE

Elsie Johns	Councillor and Committee Chairman
Oscar J. Klak	Mayor
William A. Bell	Councillor
Robert G. Guebert	Councillor
Al Eyben	Chamber of Commerce
Rev. Philip Hink	Parks and Recreation Board
Cecil Race	Preventive Social Service Board
Earl Wedel	Town Manager
Jean Forest	Development Officer
John Hilliard	Town Planner

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DelCan Limited	Transportation Consultants

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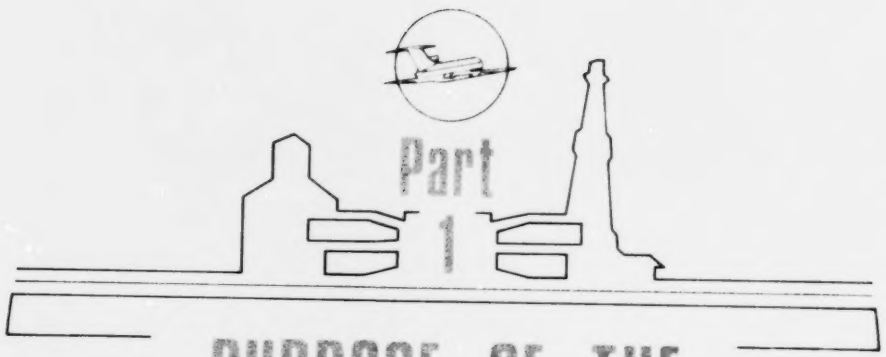


PURPOSE OF THE GENERAL MUNICIPAL PLAN

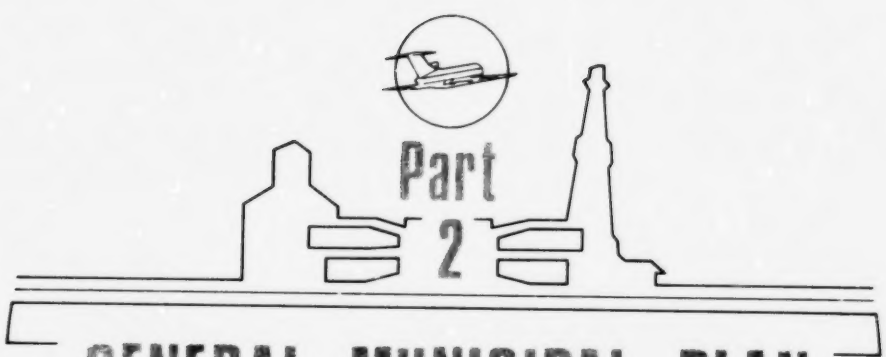
PART 1

PURPOSE OF THE GENERAL MUNICIPAL PLAN

The Town of Leduc General Municipal Plan is a broad policy document to guide both public and private planning in order to achieve the Town's development objectives. Because it will continue to be necessary for the Town to respond to changing circumstances, sufficient flexibility has been incorporated in the wording of policy statements to permit variance in the methods of achieving Town objectives without altering their intent.

The legislated authority for the preparation and adoption of the General Municipal Plan is contained in The Planning Act, 1977.

The General Municipal Plan describes the land uses proposed and the manner of and the proposals for future development in the municipality. In addition, the General Municipal Plan designates the areas of the Town that are suitable for an Area Structure Plan or an Area Redevelopment Plan, as defined by The Planning Act, 1977.



GENERAL MUNICIPAL PLAN GOALS, OBJECTIVES and POLICIES

PART 2

GENERAL MUNICIPAL PLAN GOALS, OBJECTIVES AND POLICIES

2.1 MUNICIPAL GROWTH AND URBAN FORM

2.1.1 PREAMBLE

The Town of Leduc has undergone several functional changes over the last 100 years.

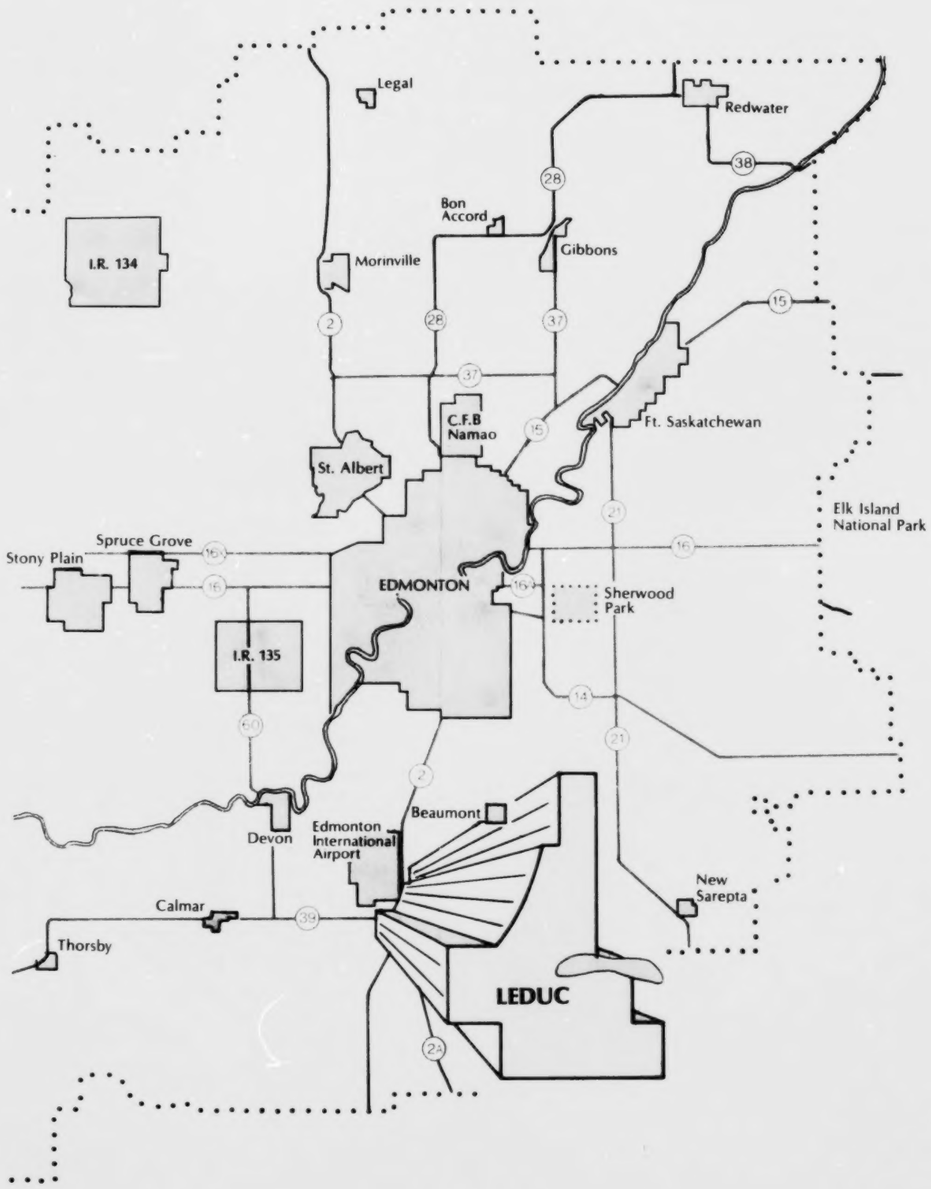
Of the variety of factors which have affected the Town's development, transportation routes continue to play a vital role. In 1876, a telegraph was established, followed in 1889 by Telford House — a wayside and lodging house on the old Edmonton/ Calgary Trail. In 1891 the Canadian Pacific Railway mainline from Edmonton to Calgary was completed. The following year settlers moved into north-central Alberta.

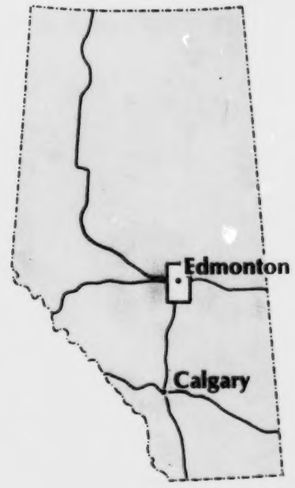
In 1899 the settlement was incorporated as a Village and in 1906, Leduc attained Town status. By 1911, the Leduc area was almost completely settled.

The next twenty-five years saw steady continuous growth as agriculture prospered. But Leduc's growth rate reflected the economic conditions affecting the surrounding agricultural region, and when the depression occurred in the 1930's, the Town's population declined slightly.

The slow growth of the early 1940's suggested the Town of Leduc had reached its upper limit as an agricultural service and distribution centre, however the discovery of the Leduc oilfields west of the Town in 1947, and the development of road, rail and air transportation facilities at Leduc have assured the Town's continued growth and prosperity (See MAPS 1 and 2).

More recent growth factors affecting the Town are closely associated with developments in Alberta and the Edmonton metropolitan area. Particularly high levels of investment and economic activity are anticipated in the fields of energy development and manufacturing with an attendant rapid growth in the number of new employment positions and related high rates of migration to the province.





N

Edmonton Regional Planning Commission

GEOGRAPHIC LOCATION

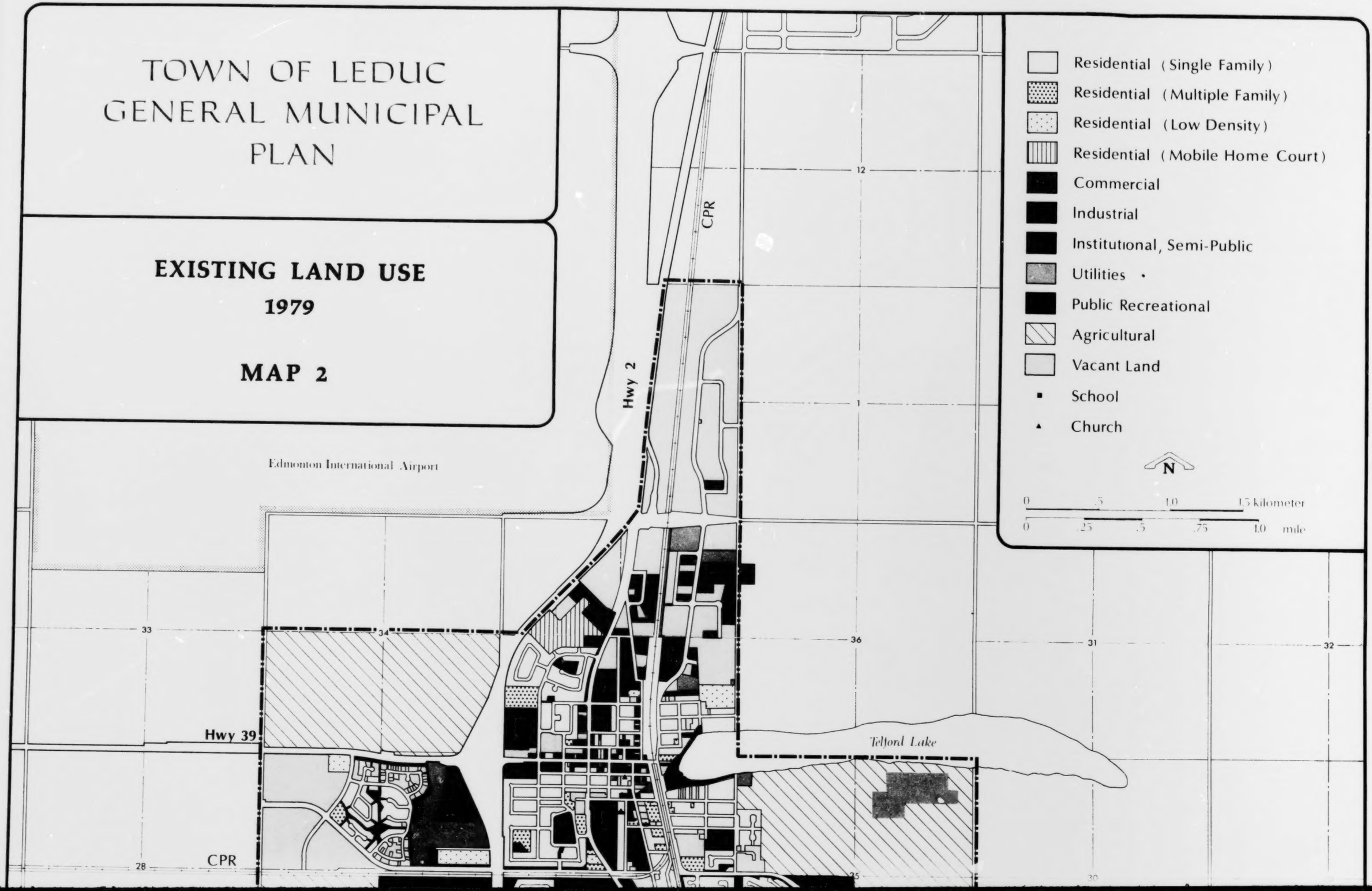
TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 1

TOWN OF LEDUC
GENERAL MUNICIPAL PLAN

EXISTING LAND USE
1979

MAP 2



Edmonton International Airport

Hwy 39

CPR

Telford Lake

Sec Rd 623

Hwy 2A

33 34 36 31 32

28 35 30 29

21 22 23 24 19 20

Church

N

0 .5 1.0 1.5 kilometer

0 .25 .5 .75 1.0 mile

The Edmonton metropolitan area functions as the major location of a growing provincial government administration, a staging point for northern development, a logistic centre for future conventional oil and gas exploration and for both conventional and unconventional oil extraction and the location of large thermal coal mining operations and power generation.

The future importance of the Edmonton metropolitan area in the provincial economy will likely be further enhanced as a result of the Alberta government's efforts to encourage industrialization and economic diversification by attracting to the province a variety of national and international manufacturing companies, head offices, financial institutions and research establishments, all of which require a large metropolitan area setting for their successful operation.

The Edmonton metropolitan area's share of provincial population growth is expected to result in metropolitan area population increases of approximately 22,700 to 25,700 persons annually.

Since the early 1970's considerable decentralization of population growth has occurred in the Edmonton area. Among the reasons for this trend in general, and Leduc's growth in particular, are:

(i) increased metropolitan area employment opportunities beyond the central city,

(ii) increased demand for single-family housing, coupled with a decreased ability on the part of Edmonton to meet this demand,

(iii) lower housing costs and lower taxes, and

(iv) a growing preference for the amenities of a small community lifestyle, including:

  (a) a more identifiable community,

  (b) reduced traffic and congestion,

  (c) ease of access to the central city,

(d) neighbourhoods more conducive to child-raising,

(e) a larger proportion of accessible open space, and

(f) lower overall population densities.

The Edmonton metropolitan area is not unique in this respect because population and industrial suburbanization has been a fairly widespread occurrence in the majority of North American metropolitan areas in the last thirty years.

The mutually reinforcing migration of people and employment opportunities to the suburbs of large cities has been generally attributed to increasing personal incomes, to technological changes affecting communications, transportation facilities for people and commodities and to changes in production and material handling technology. That is--the wide availability of the automobile, and related changes in personal life styles, the switch from railway transportation to trucks and the introduction, in manufacturing and wholesaling, of single-floor operations which require large areas of land for their operations have all contributed to metropolitan area economic decentralization. Also included among these factors is the increasing dependence of major industrial firms upon national rather than local markets which often makes necessary a location close to large airports, interprovincial highways and interchanges and away from congested central districts.

The draft Regional Plan prepared by the Edmonton Regional Planning Commission recognizes the likelihood of continued population and employment decentralization and has assigned to the Town of Leduc a major role in accommodating future metropolitan growth.

It is expected that the Town will increase in population from the current 11,603 to between 30,900 to 37,300 people by the year 2001. In order to ensure that the Town has sufficient land, utilities capacity and other services required to accommodate growth, the Town of Leduc has chosen to base its planning on an expected 2001 population of 37,300.

Town of Leduc residents generally support accommodating the expected growth of the Town. Residents consider growth to be desirable primarily because of the attendant increases in the quantity and quality of public services, commercial and industrial development and employment opportunities. However residents are concerned that public services may not keep pace with growth and that the desirable attributes of their community, such as its small town atmosphere and neighbourliness, may be diminished. Accommodation of the population expected by the year 2001 will require an estimated total of 1300 gross hectares (3,216 gross acres) of residential land, 905 gross hectares (2,238 gross acres) of industrial land and up to 85 net hectares (210 net acres) of commercial land — a total which includes existing land uses. It should be recognized however that a number of factors, including the types and intensities of development, will determine the amount of land utilized for urban purposes.

Land may be desired in addition to actual need in order to ensure long term flexibility, competition in the local land development industry, consumer choice and to provide for unforeseen growth and development constraints.

A wide variety of considerations will influence Leduc's future development pattern including:

(i) the provision of utilities and transportation facilities,

(ii) the direction, frequency and intensity of winds in relationship to noxious industry,

(iii) highways, major roadways, railways and most importantly the Edmonton International Airport,

(iv) the desired distribution of residential development east and west of Highway #2,

(v) the recreation potential of Telford Lake and other natural features,

(vi) potentially hazardous pipelines and powerlines, and

(vii) the construction difficulties and agricultural capability of different terrain and soil types.

Based on an analysis of the land resources, land use and utilities factors affecting urban expansion, the future urban form illustrated by MAP 3 is considered to be the Town's desirable development pattern since it embodies the following major advantages:

(i) existing residential and industrial development commitments are honored,

(ii) generally incompatible residential and industrial land uses are separated and additional residential development conforms to the Town's policy regarding the proximity of that type of development to the International Airport noise contours and hazard areas,

(iii) the central business district remains the major shopping area in the Town,

(iv) the recreational attributes of Telford Lake are recognized,

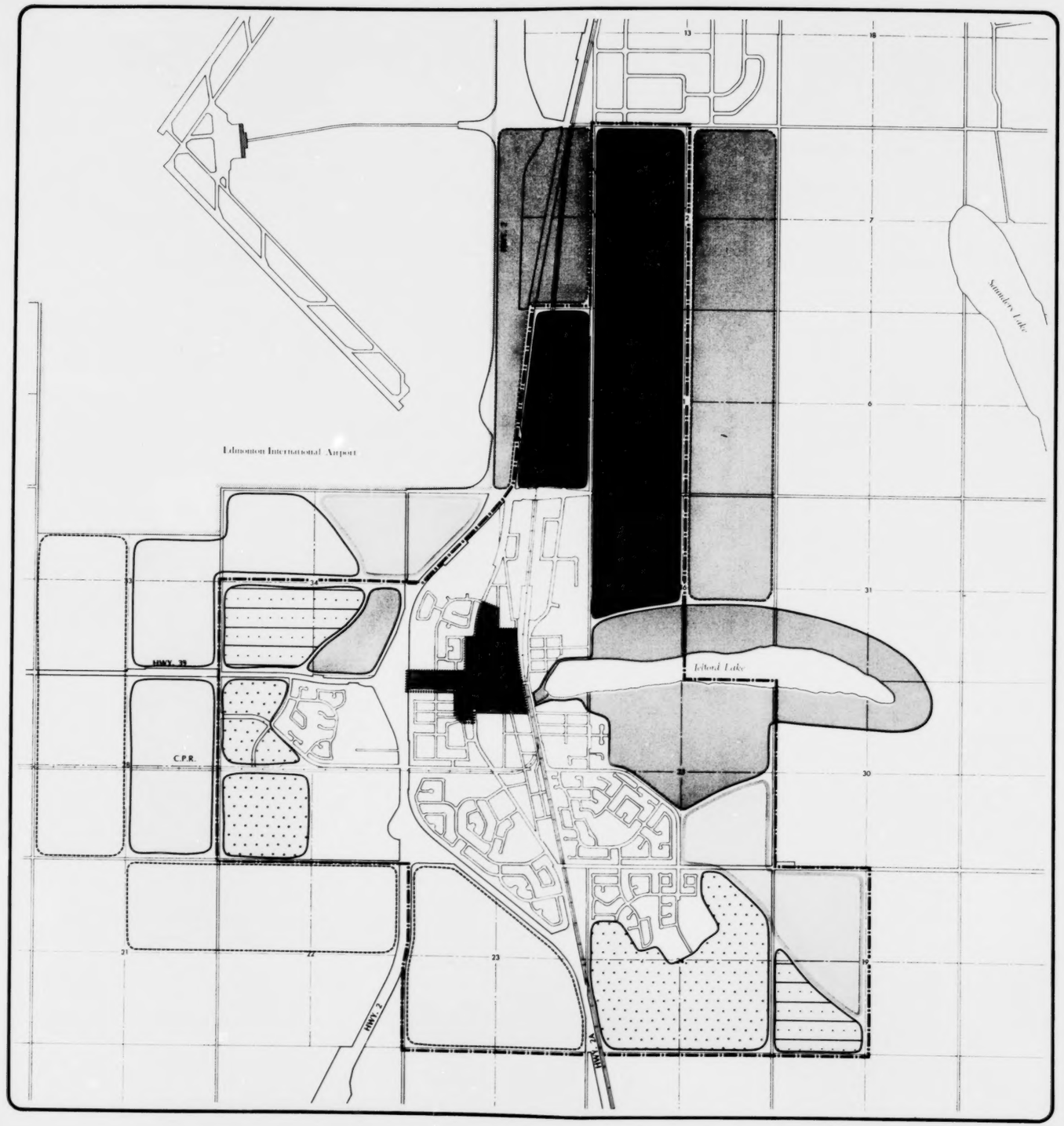
(v) population growth west of Highway #2 creates the additional contributory population required for the provision of higher order services,

(vi) the balancing of population growth to the southeast, west and northwest sectors creates the conditions necessary for efficient transportation, water, sewerage and drainage systems, and

(vii) additional planning flexibility is accomplished by the recognition of suitable expansion areas beyond those areas expected to be developed within the next twenty years.

The Town's future urban form is also consistent with resident objectives, as expressed through the community survey, including:

(i) the accommodation of urban growth,



- Approved Residential
- Short Term Available Residential Expansion Area
- Required Residential Annexation Area
- Alternative Residential Expansion Area
- Expanded Central Business District
- Regional Shopping Centre
- Approved Light Industrial
- Available Industrial Expansion Area
- Industrial Annexation Area
- Agriculture/Open Space
- Agriculture/General Industrial Reserve

N

0 5 1 15 2 kilometers
0 5 1 15 miles

Edmonton Regional Planning Commission

FUTURE URBAN FORM

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 3

(ii) minimization of air and noise pollution,

(iii) improvement of the central business district and the provision of additional shopping opportunities,

(iv) efficient transportation and utilities systems,

(v) increased recreation opportunities and environmental conservation,

(vi) more and improved public services, and

(vii) affordable housing.

Utilities

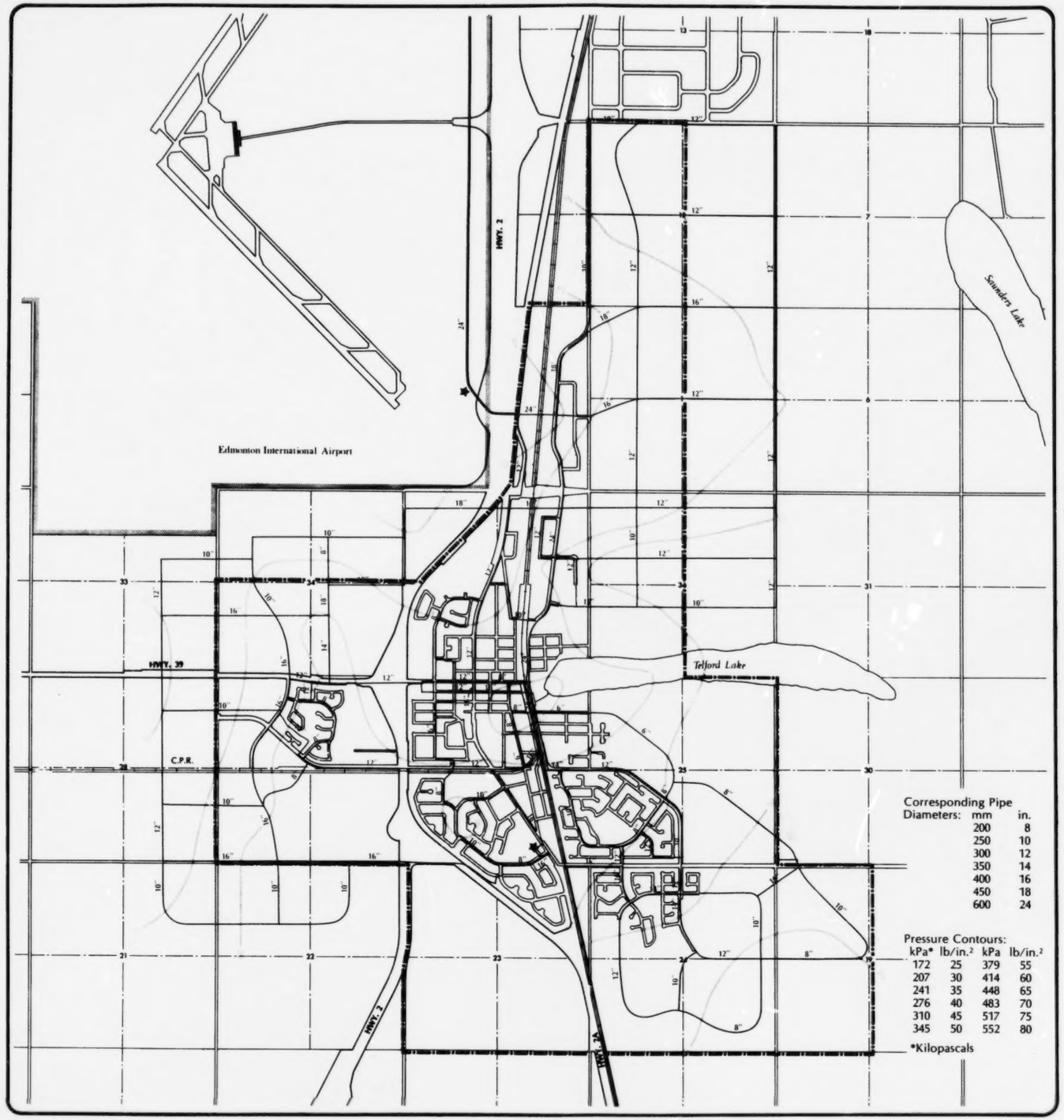
The new Strathcona-Leduc Water Board 600mm (24") diameter steel water supply line will be adequate to serve the Town and its future expansion areas. The Town will be required to provide reservoir and repumping facilities at the supply point (near the master meter vault) to the Town. These facilities should be designed to meet the Town's 1991 projected peak day water demands.

The existing water distribution system is adequate to meet existing water demands. The existing system can be extended to service future development areas as shown on MAPS 4 to 6. As indicated by the pressure contours the proposed system will provide water distribution at adequate pressure throughout the system and during the various design periods.

Although the capacity of the existing distribution reservoir and repumping facilities in Corinthia Park meet the existing water demands, to provide adequate storage and service pumping capacity to the year 1991, an additional 6,819 m^3 (1.5 mig) reservoir cell and one 102 L/s (1,350 igpm) service pump installation will be required in 1981.

The proposed sanitary sewerage system (trunk sewers and lift stations) is illustrated by MAP 7.

The analysis of the sewerage system is based on the assumption that the collected sewage will be



EXISTING

— Supply Line[1]

— Trunk Main[2]

★ Reservoir

PROPOSED

— Trunk Main

Pressure Contour[3]

★ Reservoir

Note:
1. Diameter shown in inches
2. Only those watermains included in analysis are shown.
3. Pressure shown in lb/in²

Source: Associated Engineering Services Ltd.

N

0 .5 1 1.5 2 kilometers

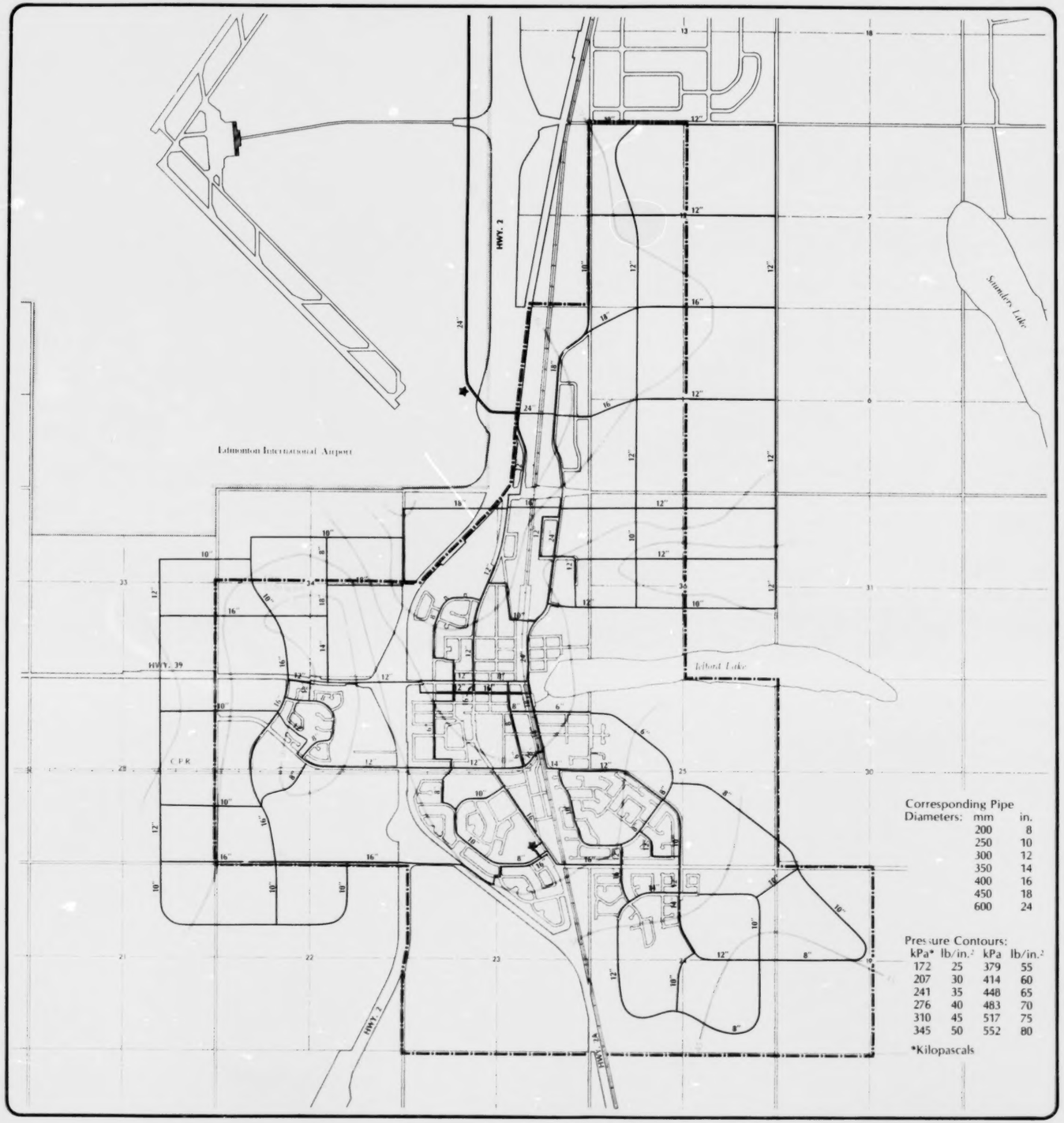
0 .5 1 1.5 miles

Edmonton Regional Planning Commission

WATER FEEDER SYSTEM
- Peak Hourly Demand

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 4



Corresponding Pipe Diameters:

mm	in.
200	8
250	10
300	12
350	14
400	16
450	18
600	24

Pressure Contours:

kPa*	lb/in.²	kPa	lb/in.²
172	25	379	55
207	30	414	60
241	35	448	65
276	40	483	70
310	45	517	75
345	50	552	80

*Kilopascals

EXISTING

- Supply Line[1]
- Trunk Main[2]
- Reservoir

PROPOSED

- Trunk Main
- Pressure Contour[3]
- Reservoir

Note:
1. Diameter shown in inches
2. Only those watermains included in analysis are shown.
3. Pressure shown in lb/in²

Source: Associated Engineering Services Ltd.

N

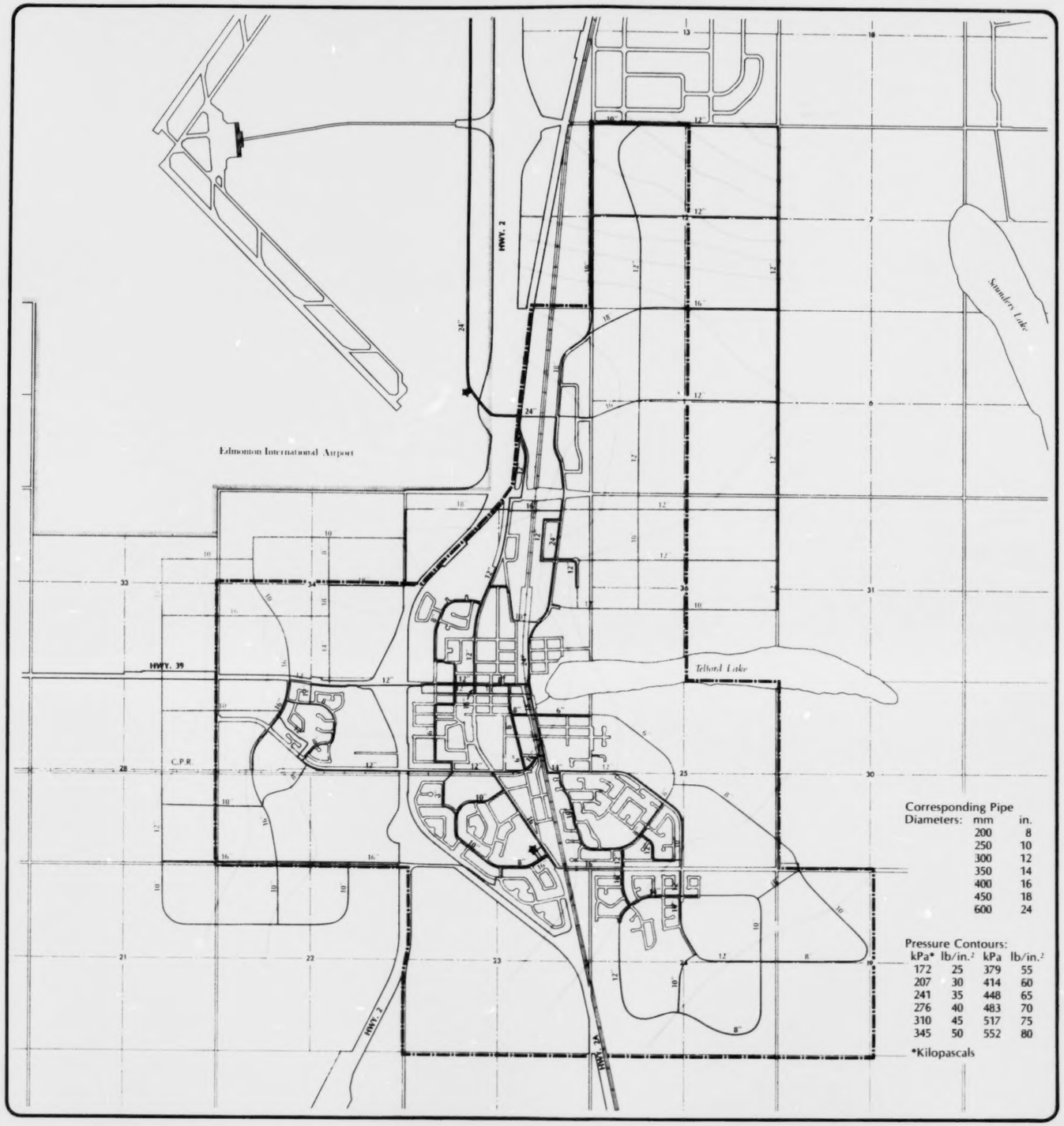
0 5 1 15 2 kilometers
0 5 1 15 miles

Edmonton Regional Planning Commission

WATER FEEDER SYSTEM
- Peak Daily Demand Plus Commercial Fire Flow

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 5



EXISTING

- Supply Line[1]
- Trunk Main[2]
- ★ Reservoir

PROPOSED

- Trunk Main
- Pressure Contour[3]
- ★ Reservoir

Note:
1. Diameter shown in inches
2. Only those watermains included in analysis are shown.
3. Pressure shown in lb/in²

Source: Associated Engineering Services Ltd.

N

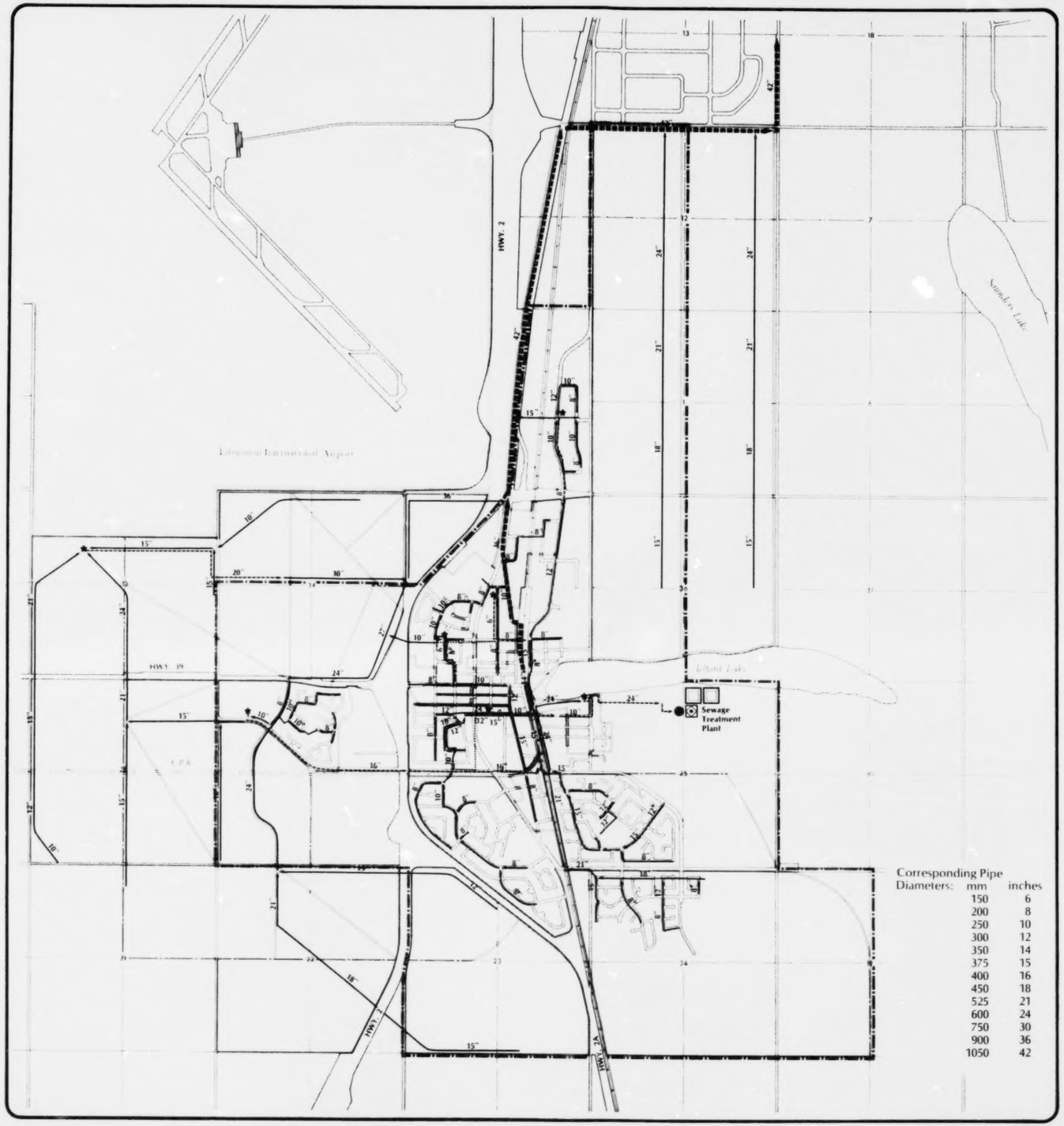
0 .5 1 1.5 2 kilometers
0 .5 1 1.5 miles

Edmonton Regional Planning Commission

WATER FEEDER SYSTEM
- Peak Daily Demand Plus Industrial Fire Flow

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 6



Corresponding Pipe Diameters:

mm	inches
150	6
200	8
250	10
300	12
350	14
375	15
400	16
450	18
525	21
600	24
750	30
900	36
1050	42

EXISTING

- Sewer Main
- Force Main
- ★ Lift Station

PROPOSED

- Regional Sewer
- Sewer Main
- Force Main
- Alternative Relief Sewer
- Tributary Area Boundary
- ★ Lift Station

Source: Associated Engineering Services Ltd.

N

0 5 1 15 2 kilometers

0 5 1 15 miles

Edmonton Regional Planning Commission

SANITARY SEWERAGE SYSTEM

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 7

discharged to the regional sewer line at 65th Avenue, and in the future the Town will not operate sewage treatment facilities other than equalization facilities to control the rate of flow into the regional sewer line.

The proposed industrial expansion area to the northeast can be serviced by gravity trunk sewers. These trunk sewers can be connected to the regional sewer line along Airport Road.

To improve sanitary sewer services within the existing developed areas and provide services in future subdivisions, the following improvements should be considered:

(i) the upgrading of the existing sanitary sewerage system (trunk sewers and lift stations) between Highway #2 and the Canadian Pacific Railway line,

(ii) the implementation of the regional sewer line, and

(iii) implementation of the first stage of the west sanitary trunk sewer.

The proposed stormwater management system includes drainage parkways, stormwater ponds, storm sewers and drainage channels (see MAP 8).

The basic design concept is to size the proposed drainage facilities to serve their tributary areas at ultimate development and to control the rate of runoff from the development area using the stormwater management approach. This approach includes runoff control by creating artificial lakes, so the increased runoff from the developed area will not exceed the predevelopment or agricultural rate of runoff. This approach makes the best use of the natural features of the land and utilizes the existing stream network in the final drainage system where possible.

Transportation

In order to accommodate the traffic volumes in Leduc projected for the year 2001 the conceptual transportation network (MAP 9) requires the following roadway improvements:

(i) 65th Avenue will be required as a four lane divided arterial from Nisku Spine Road to the new West Arterial.

(ii) The interchange of Highway #2 and 65th Avenue will have to be completed.

(iii) The new West Arterial will be required as a four lane divided arterial from 65th Avenue to south of 50th Avenue.

(iv) The East Arterial will be required as a four lane divided arterial from Nisku Spine Road to Rollyview Road.

(v) Highway #39 (50th Avenue) will be required as a six lane divided arterial from Highway #2 to the West Arterial. This improvement is necessary to accommodate the through and local traffic, and the traffic which will be generated by the proposed regional shopping center.

(vi) 44th Avenue to be extended from 50th Street across the Canadian Pacific Railway tracks to 46th Street as a four lane undivided roadway.

(vii) 42nd Avenue to be widened to a four lane undivided roadway from 50th Street to the West Arterial.

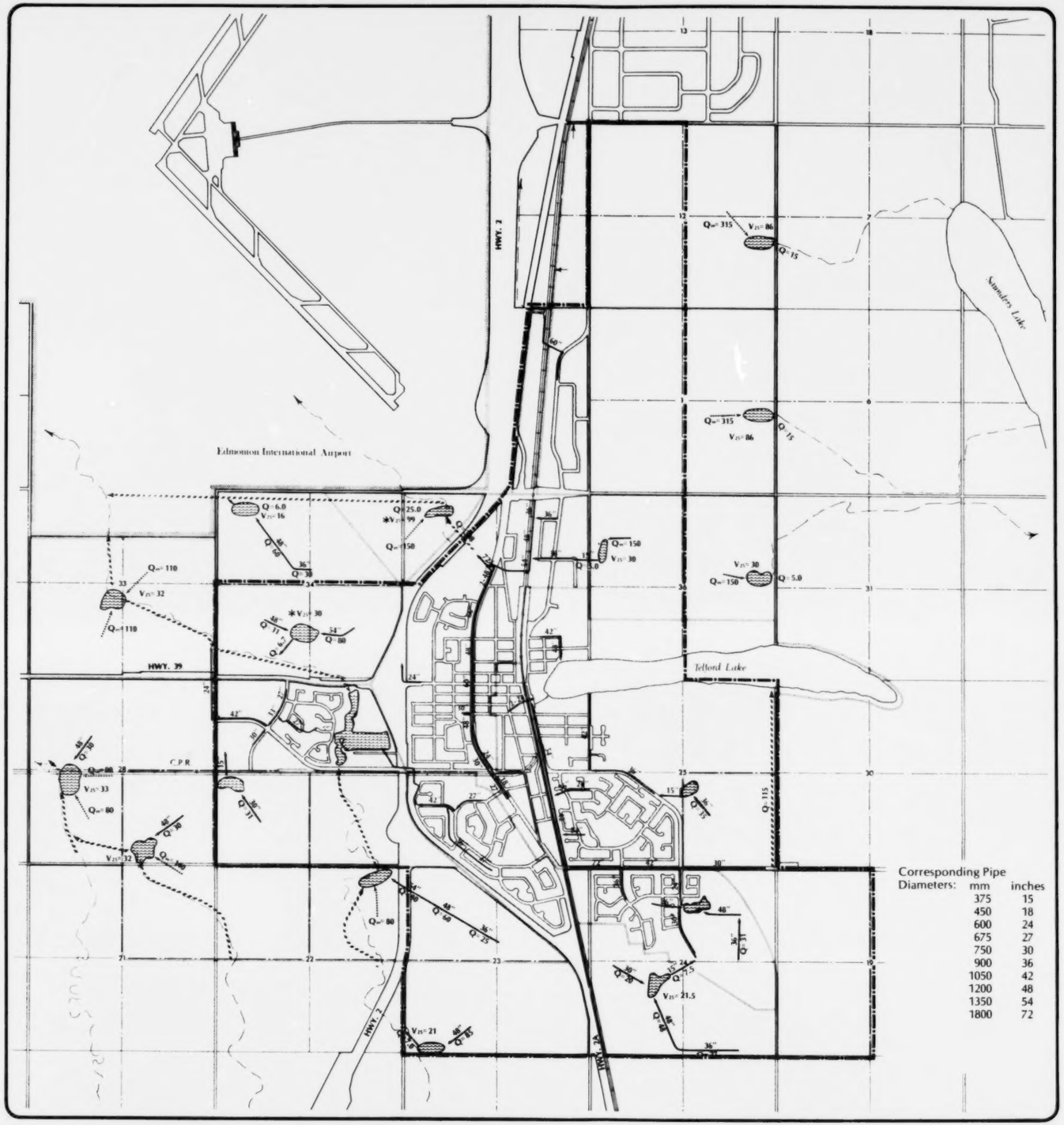
(viii) 47th/48th Streets to be constructed as a four lane undivided arterial from 50th Street (at 63rd Avenue) to 44th Avenue.

(ix) A new at-grade railway crossing to connect 48th and 46th Street at 54th Avenue.

(x) The existing 46th Avenue at-grade railroad crossing to be removed.

(xi) Rollyview Road to be widened to a four lane undivided arterial from east of Black Gold Drive to the East Arterial.

(xii) 46th Street to be widened to a four lane undivided arterial from 46th Avenue to South Park Drive.



EXISTING

- Storm Sewer
- Drainage Channel[1]
- Detention Pond
- Retention Pond[2]

PROPOSED

- Storm Sewer
- Drainage Parkway
- Local Inflow
- Retention Pond[2.3.4.]
- Subcatchment Area Boundary

Note:
1. Existing channels to be upgraded as required
2. V_{25} = 248 Twenty five year volume in acre-feet (to convert to cubic metre × 1233.0)
3. Q = 30 Five year flow in cubic feet per second (to convert to cubic metres per second × 0.0283)
4. * Calculations based on shopping centre development

Source: Associated Engineering Services Ltd.

N

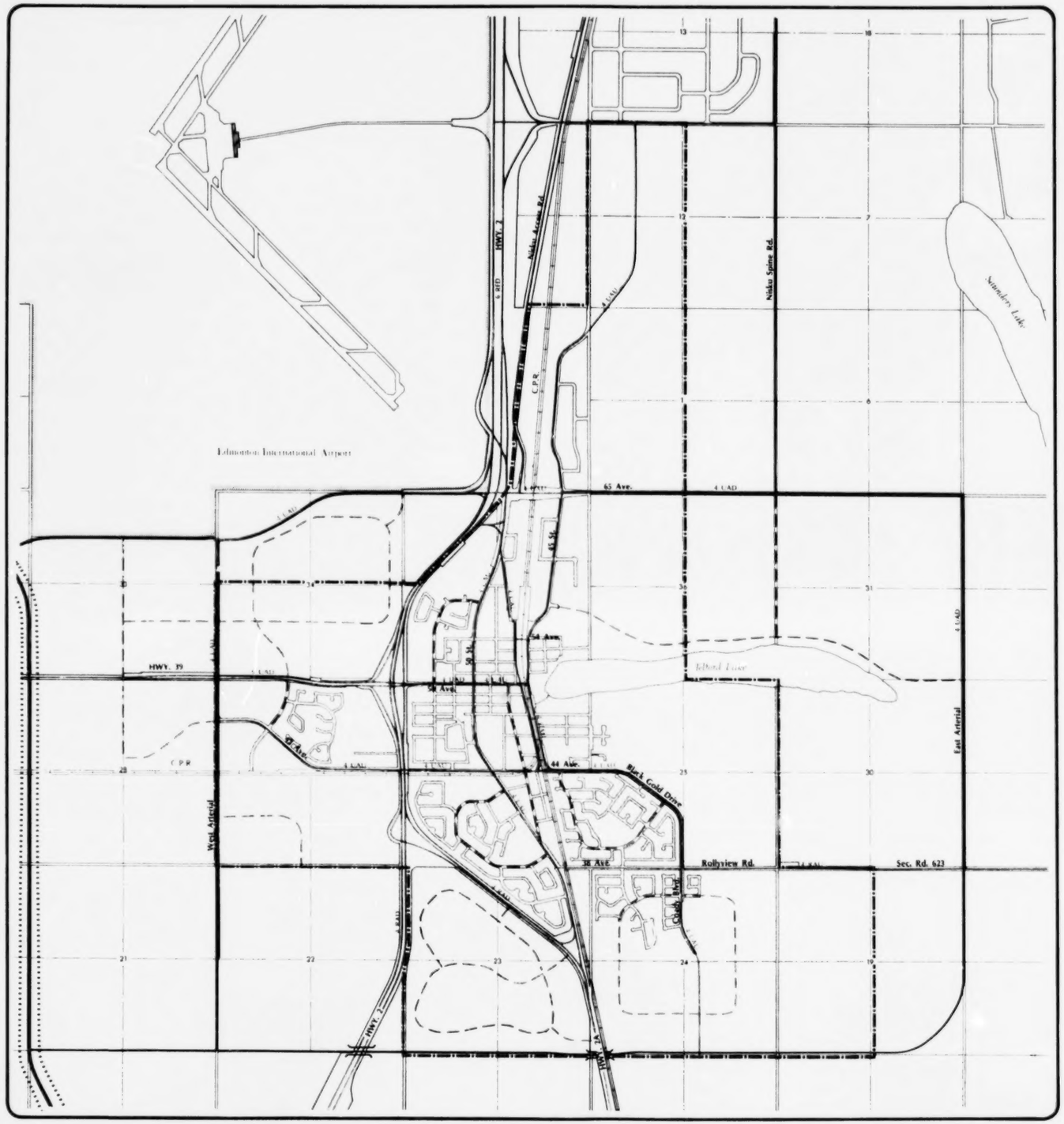
0 .5 1 1.5 2 kilometers
0 .5 1 1.5 miles

Edmonton Regional Planning Commission

STORMWATER MANAGEMENT SYSTEM

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 8



DESIGN YEAR 2001

- Collector
- Arterial

LONG TERM FUTURE

- Arterial
- Free Flow Facility Corridor
- Overpass

ROADWAY CLASSIFICATION

A - Arterial C - Collector D - Divided
F - Freeway R - Rural U - Urban, Undivided
2 - Number of Lanes
eg. 2 UAU - 2 lane urban arterial undivided.
6 RFD - 6 lane rural freeway divided.

Note:
1. Roadway network shown is conceptual only and is subject to revision.
2. Section 23 access and collectors based on Carma Developers proposal, July 1980.
3. Access to Hwy. 2A & 39, and 65 Ave. west of Hwy. 2 is subject to review by Alberta Transportation.
4. 45 St. to connect to 5 St. (in Nisku) at Airport Road.

Source: DeLCAN

N

0 5 1 15 2 kilometers
0 5 1 15 miles

Edmonton Regional Planning Commission

TRANSPORTATION NETWORK

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 9

(xiii) Black Gold Drive to be widened to a four lane divided arterial from South Park Drive to Rollyview Road.

(xiv) Coady Boulevard to be extended as a four lane undivided arterial.

(xv) Completion of north and south ends of 50th Street as a four lane arterial.

(xvi) Channelization of 50th Street to facilitate its function as a downtown penetrator/distributor.

It would appear that both local bus service within the Town of Leduc and commuter bus service between Leduc and Edmonton will be feasible within the study period. This feasibility will depend, of course, on the establishment of reasonable subsidy levels by both the municipalities involved and the provincial government.

If the decision is made to implement either commuter or local transit service, considerable additional work will be required to explore the options available and establish the type of transit service best suited to the goals of the community. However, based on the analysis carried out for the General Municipal Plan, it is recommended that, provision for bus transit requirements be made when roadway standards are developed, and that transit requirements be taken into account in future planning in the area.

The sizing of utilities and transportation system components allows for a somewhat greater intensity of development than proposed at this time in order to assure future systems capacity. Those areas identified as Agriculture/General Industrial Reserve are considered suitable for future high quality light industrial development. The utilities and transportation systems have been designed to accommodate such development.

2.1.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

One of the Town of Leduc's goals is to *MAINTAIN A RATE OF POPULATION GROWTH CONSISTENT WITH THE*

TOWN'S IMPORTANT ROLE AS A MAJOR INDUSTRIAL AND SERVICE CENTRE IN THE EDMONTON REGION.

The following objective and policies further indicate the ways in which the Town of Leduc will strive to attain its population growth goal.

OBJECTIVE:

To specify a future level of population and rate of growth which will be consistent with the Town's role in the Edmonton region.

POLICIES:

(i) The Town will endeavour to accommodate a total population of approximately 19,000 residents by the year 1986 and approximately 37,000 residents by the year 2001.

(ii) The Town will endeavour to maintain an average annual rate of growth of approximately eight percent to the year 1986.

(iii) The Town will annually monitor population growth and its characteristics and adjust Town growth policies when necessary to recognize changes in resident attitudes and market forces.

When monitoring future population growth, the Town should be especially cognizant of recently expressed resident desires for increased work and shopping opportunities, affordable housing, retention of small community attributes, efficient transportation systems and the provision of a variety of public services; particularly recreation and school facilities, police protection and social services. Other parts of the General Municipal Plan include objectives and policies concerning the above mentioned subjects.

In order to be aware of population changes, the Town administration should continue to conduct an annual civic census which would determine the following items:

(a) the age, sex and marital status of

each household member,

(b) where applicable, the occupation (skill), place of work, and employment status of each household member,

(c) house type, tenure and geographic location, and if necessary,

(d) resident priorities for Town development and opinions concerning topical issues.

In order to anticipate short term future population growth pressures, the Town administration may wish to undertake or may wish to request appropriate public agencies to undertake an annual survey of builders/developers to determine the expected production of new housing units and to periodically update the Population Growth Prospects report by methods similar to those described in the Town of Leduc General Municipal Plan Terms of Reference.

In order to further ensure that the Town will continue to increase in population at a rate which will reinforce its role as a satellite industrial centre, the Town should continue to actively promote the benefits of the Town as a place in which to live.

If it is evident that the potential population growth may exceed the capacity of the Town's public services and administration, the Town may choose to temporarily institute growth control measures such as short term development staging, quotas for building permits and/or a total annual limit on building permits. Such measures should only be instituted if it is evident that more rapid growth will cause significant resident dissatisfaction.

The Town of Leduc's overall urban form goal is to *ENCOURAGE THE DEVELOPMENT OF AN EFFICIENT URBAN FORM, INCLUDING SUFFICIENT EXPANSION AREAS AND ASSOCIATED TRANSPORTATION AND UTILITIES SYSTEMS, TO ACCOMMODATE FUTURE GROWTH.*

The following objectives and policies further indicate the ways in which the Town of Leduc will

strive to attain its urban form goal.

OBJECTIVE:

To specify a future land use pattern which will accommodate varying types and densities of development in a manner which permits efficient transportation and utility servicing.

POLICIES:

(i) The Town favours future residential expansion to the south, southwest and west of the presently developed area of the Town.

(ii) The Town encourages development interests in the area north of Highway #39 and west of Highway #2 to resolve the incompatibility of residential development in proximity to the existing alfalfa processing plant.

Development of lands for residential purposes in proximity to the alfalfa processing plant would conflict with the municipal development objective of creating a high quality residential environment. The Town of Leduc also recognizes that development of the entire area north of Highway #39 and west of Highway #2 may not need to be delayed due to the presence of the alfalfa processing plant immediately adjacent to its boundaries. Accordingly the Town will review with interest any objective information which would define an acceptable zone of permitted development.

(iii) The Town favours future commercial/ light industrial development north and northeast of the central business district, west of the Canadian Pacific Railway line and general industrial uses east of the rail line.

(iv) The Town will endeavour to maintain at least a twenty year supply of land within its boundaries for urban development.

(v) The Town supports in principle the annexation of those lands identified by the General Municipal Plan as being required in order to ensure at least a twenty year supply of future residential and industrial land.

(vi) The Town will continue to require the preparation of Outline Plans prior to major subdivision, in accordance with procedures and information requirements as outlined by the Town, and the Town may adopt these plans as Area Structure Plans.

All undeveloped areas of the Town are considered potentially suitable for the preparation of area structure plans.

(vii) The Town will not adopt a rigid staging of development areas but rather will require proposed developments to contribute to the evolution of the Town's overall transportation and utilities system at the applicant's cost for those services directly attributable to new development, and require applicants to satisfy the Town that the proposed development fulfills the goals of the General Municipal Plan.

(viii) The Town reaffirms its commitment to the preservation and strengthening of the present downtown as the primary commercial and and business area of Leduc.

(ix) The Town will continue to develop the existing central area as an attractive community focus for the Town's administrative and cultural activities.

(x) The Town may permit limited expansion of the downtown area into adjacent residential areas.

The Town's commercial development strategy is further detailed in the Economic Development part of this General Municipal Plan document.

(xi) The Town may permit high density residential redevelopment in the area immediately east of Alexandra Park provided such housing is adequately served with utilities, buffered from the rail lines and sufficient on site open space and amenities are provided.

(xii) The Town favours the development of a sub-regional scale shopping centre, containing approximately 37 161 sq. m. (400,000 sq. ft.) of gross leasable area, west of Highway #2 and north of Highway #39.

(xiii) The Town will continue its efforts to develop the recreation potential of Telford Lake and adjacent lands.

The boundaries of the agriculture/open space zone around Telford Lake are conceptual and will be further defined through the preparation of area structure plans. The Town will evaluate the Telford Lake shoreland and undertake land use planning compatible with the recreation and open space potential of the Lake.

(xiv) The Town will continue to review unusual development proposals on their merits.

The above statement should not be interpreted as a policy which nullifies all other policies. Rather, the policy recognizes that in a rapidly growing urban centre such as Leduc, unique circumstances will arise for which there are no specific precedents or policies and which therefore have to be judged on their merits.

OBJECTIVE:

To develop a reasonable land use pattern in the vicinity of the Edmonton International Airport.

POLICIES:

(i) The Town, with the assistance of the Edmonton Regional Planning Commission, the Ministry of Transport and provincial officials, will continue to undertake compatible land use planning in the vicinity of the Edmonton International Airport in order to protect the safe, efficient operation of the airport and the health, safety and general well-being of the Town residents.

Leduc's future urban form, as illustrated on MAP 3, provides a land use pattern which is compatible with the operation of the Edmonton International Airport.

(ii) The Town will not permit major new residential subdivision within the 30+ Noise Exposure Forecast contour line of the Edmonton International Airport.

(iii) The Town will continue to critically review applications for development in the 30+ Noise Exposure Forecast contour area and will continue to refer applications for development which may affect the safe and efficient functioning of Edmonton International Airport to the Ministry of Transport for their comments.

OBJECTIVE:

To provide the necessary utility systems to accommodate growth.

POLICIES:

(i) The Town, in its utility planning, will endeavour to maintain maximum flexibility in the sequence of extending utilities into new development areas and for a greater intensity of development that is proposed at this time in order to

ensure future systems capacity.

(ii) The Town may require the preparation of a servicing scheme and detailed geotechnical study prior to area structure plan approval or subdivision approval.

OBJECTIVE:

To develop an integrated, safe, attractive and efficient transportation system for the movement of goods and people which minimizes the adverse effects of transportation routes upon adjacent land uses.

POLICIES:

(i) The Town's long term transportation planning will protect the functioning of Highway #2 as a key element of the provincial highway network (see MAP 9).

(ii) The Town may periodically investigate the feasibility of public transportation within and beyond the Town's boundaries as part of its long term transportation planning. Such examinations will determine the timing and feasibility of alternative types of public transit and will identify those actions required in order to maintain maximum flexibility in the choice of future transit systems.

OBJECTIVE:

To encourage the use of a variety of travel modes.

POLICIES:

(i) The Town's roadway network will be designed so as to facilitate future bus transit within the Town.

(ii) The Town will cooperate with other

governments and agencies in assessing the potential of metropolitan scale public transportation systems.

(iii) The Town will encourage where appropriate the development of future residential areas which segregate pedestrian and vehicular traffic by pedestrian circulation systems which link residential areas with schools, parks and recreation facilities.

2.2 ECONOMIC DEVELOPMENT

2.2.1 PREAMBLE

The term "economic development" includes two major land use categories - commercial and industrial.

Commercial Development

The commercial sector has been the traditional mainstay of the Town of Leduc's economy. Initially, commercial facilities developed in Leduc to serve the surrounding agricultural area. More recently, however, the main impetus for continuing development has come from the rapidly growing population of the Town itself.

Leduc's total trade sales (both retail and service) were $2,889 per capita in 1973. Between 1973 and 1977 this figure increased by 104.4% to $5,905 per capita. Retail and service trade employment also grew considerably in the period under review, to reach 861 people in 1977.

The total value of commercial building permits in the period between 1971 and 1977 was $7.8 million, as opposed to $12.7 million in the three year time span between 1977 and 1979. This indicates that growth of Leduc's commercial sector has accelerated in the last several years.

Although local residents shop in the Town for groceries and drugs, a relatively large proportion of their purchases of other goods and services occurs elsewhere, mainly in Edmonton (see Table 1). This seems to suggest that Leduc's relatively well developed commercial sector is, to a large degree, supported by its secondary trading area (that segment of the total geographical trading area lying beyond the boundaries of the Town). This also suggests that future prospects for the development of the Town's commercial sector will be determined, not only by increases in the number of people living within Leduc's trading area and by the growth in their incomes, but also by the degree to which their shopping preferences can be redirected towards the Town's commercial facilities. There are two chief ways to stimulate this redirection.

(i) increase the variety and level of local commercial services; and

TABLE 1

PERCENTAGE OF COMMERCIAL PURCHASES

BY TYPE AND LOCATION

Type	Location			
	In Town	Edmonton	Other	Total
Groceries	97.1	2.7	.2	100%
Drugs	96.0	3.5	.5	100%
Clothing and Shoes	44.0	53.9	2.1	100%
Hardware & Housewares	68.7	30.6	.7	100%
Furniture	26.2	70.5	3.3	100%
Major Appliances	35.5	59.5	5.0	100%
Car or Truck Purchase	36.0	40.0	24.0	100%
Car or Truck Service	67.4	22.6	10.0	100%
Barber or Beauty Shop	84.1	13.3	2.6	100%
Dry Cleaners & Laundry	91.4	8.0	.6	100%
Medical Doctor	64.4	32.5	3.1	100%
Restaurant	48.7	47.1	4.2	100%

Source: Community Survey of the Town of Leduc, 1979.

(ii) promote the expansion of local employment opportunities since residents employed in Edmonton have a markedly greater propensity to shop there.

Most of Leduc's commercial activities are presently located in the central business district (C.B.D.) area (see Map 2). The C.B.D. commercial segment extends along 50th Avenue, from Highway #2

in the west to the Canadian Pacific Railway line in the east. Other C.B.D. commercial developments are situated along 50th Street north of 50th Avenue to approximately 57th Avenue as well as north of 50th Avenue along the railway tracks. Pockets of commercial activities are also located along 47th Avenue between 50th Street and the Canadian Pacific Railway line. Larger scale commercial developments are situated in the western and north-eastern portions of the C.B.D.

Peripheral commercial facilities (those located outside the downtown area) are rather limited both in number and size. They account for approximately eight percent of the total commercial floor space. The largest development of this type is Corinthia Shopping Centre, at the corner of Corinthia Drive and 50th Street. Approximately ten larger parcels have also been recently developed for commercial purposes in the industrial area north of the C.B.D.

The commercial structure of the Town of Leduc is generally compact and slightly acentric in relation to the residential areas and with a bias to the north. This location, along the two main east-west and north-south traffic arteries, makes it easily accessible to all presently developed residential districts.

The overall density of commercial development is relatively low, on the average slightly over 2 066 sq. m. (9,000 sq. ft.) of gross leasable area (G.L.A.) per net hectare (acre). This low average density is probably due to the fact that expansion of the central commercial area has occurred mainly through redevelopment of the adjacent older residential districts. Because of the slow and gradual character of the redevelopment process, no substantial physical constraints were encountered.

The majority of the current commercial development in Leduc consists of small commercial firms situated on strips of individual lots along the main arterials. Planned shopping centres, where a single owner rents out commercial space for a mix of establishments who share a common parking area, are limited in number.

The main advantage of commercial development in

planned shopping centres is that the shopping centre can include adequate parking and unloading areas on the site, thereby preventing overflow parking and protecting the capacity of adjacent streets to carry through traffic. Land is used efficiently because the overlapping use of parking areas is permitted. In addition, by combining a variety of establishments in a single building, a shopping centre makes possible convenient "one stop" shopping. However, a single structure shopping centre as a rule involves single ownership and various restrictive policies for the tenants. For this reason some businesses may find a location in a shopping centre to be unsatisfactory or even impossible.

The main advantages of commercial development formed by strips of smaller, individually owned commercial lots are the flexibility and freedom of action offered to the constituent commercial firms. The most critical disadvantages of this type of development include unsuitability for "one stop" shopping, frequent lack of parking, dependency on on-street parking and related traffic congestion.

As neither of the two aforementioned types of commercial development is free from shortcomings and each possesses its own particular advantages, both should be allowed to continue as part of the Town's commercial structure. A commercial strategy and planning policies should be instituted, however, in order to minimize potential problems.

It has been projected that the Town's total commercial gross leasable area may increase to 209 961 sq. m. (2.26 million sq. ft.) by the year 2001.

The C.B.D.'s total commercial area could be expanded, through the redevelopment of older residential properties, to a total of approximately 36 net/49 gross hectares (90 net acres/120 gross acres) of land. Assuming that the present C.B.D.'s average density can be increased to 4 591 sq. m. (20,000 sq. ft.) of G.L.A. per hectare (acre), its expanded area should be capable of accommodating a very large proportion of the Town's total commercial space.

From an historical perspective it would seem that,

if a municipality's central business district is to continue to be viable, a certain minimum proportion of its total commercial space must be located there. This proportion appears to vary for individual municipalities over time and with their stage of development, as well as with any shifts in the functions they perform for their hinterlands. However, preservation of the viability of the C.B.D. is only one municipal objective, albeit a very important one. Other competing objectives also have to be considered, including;

(i) maximization of the overall commercial sector's growth,

(ii) provision of a reasonable degree of shopping convenience for local residents, and

(iii) minimization of land use conflicts associated with the conversion from low density residential uses to commercial uses in the downtown area.

Maximization of the growth of the Town's commercial sector (and attainment of the projected total of 209 961 sq. m. (2.26 million sq. ft.) of gross leasable commercial area) requires enlargement of Leduc's current trading area through the establishment of a major sub-regional scale retail shopping facility. Such a facility would act as a catalyst for accelerated growth and the upgrading of the other segments of the Town's commercial sector. Substantial industrial development is also required, not only to bring new residents to the Town but also to encourage local residents to purchase a larger proportion of goods and services in Leduc.

Although the viability of the C.B.D. can clearly best be achieved through concentration of commercial development in the downtown area, the attainment of the other objectives requires some degree of peripheral commercial growth. A range of 55% to 64% of the total commercial floor space located in the downtown area represents a reasonable compromise between the previously listed competing municipal objectives. Accordingly, the Town should plan to accommodate between 115 200 - 134 709 sq. m. (1.24 - 1.45 million sq. ft.) of

commercial gross leasable area in the downtown area by the year 2001.

The strength and vitality of a municipality's downtown area depends, not only on its relative size, but also, to a significant degree, on the types, intensities and arrangement of the various land uses it contains. The most dominant and important land use in a downtown, of the size envisioned for Leduc, is retail trade, complemented by a variety of service establishments and office developments. Various institutional, recreational, educational, cultural and higher density residential land uses also belong among the land use components which can be considered desirable for the C.B.D. The downtown area should be activity and people oriented. It should be able, therefore, to attract not only shoppers, but also those residents who want to spend their leisure time enjoyably and interestingly. This subject should be dealt with in greater detail by a central area redevelopment plan.

Leduc's central commercial area can be expected to continue performing certain neighbourhood and local commercial functions for the population within its vicinity. Nevertheless, with growing peripheral commercial development, the C.B.D. will have to evolve towards increasing specialization in the Town-wide and regional type activities. This means that it will have to provide an increased amount and variety of higher order goods and services, for both local residents and those living in Leduc's secondary trading area. Because of its expected population growth, its favourable location and good accessibility from the surrounding area, Leduc has the potential to capture a substantial amount of higher order commercial functions which would otherwise be performed by the City of Edmonton, the City of Red Deer or possibly the City of Wetaskiwin.

There are three main physical constraints to further expansion of the downtown's commercial activities. The Canadian Pacific Railway line and Highway #2 constrain the C.B.D.'s expansion to the east and west. The expansion of commercial uses to the south and north is possible, but only through the redevelopment of existing residential properties. Since the low density residential

TABLE 2

SUMMARY OF COMMERCIAL SPACE PROJECTIONS BY LOCATION 2001 (1)

LOCATION	GROSS LEASE-ABLE AREA SQ. METERS X 100 (SQ.FT.X1000)	% OF TOTAL	NET HECTARES (ACRES)	GROSS LEASE-ABLE AREA SQ. METERS X 100 (SQ.FT.X1000)	% OF TOTAL	NET HECTARES (ACRES)
CENTRAL BUSINESS DISTRICT	115.2 (1,240)	55	36.4 (90)[2]	134.7 (1,450)	64	36.4 (90)[2]
SUB-REGIONAL SHOPPING CENTER	37.2 (400)	18	16.2 (40)	37.2 (400)	18	16.2 (40)
SUBURBAN COMMERCIAL	18.6 (200)	9	8.1 (20)	13.9 (150)	7	6.1 (15)
NORTHERN INDUSTRIAL AREA	39.0 (420)	18	24.3 (60)[3]	24.2 (260)	11	15.0 (37)[3]
TOTAL	210.0 (2,260)	100	85.0 (210)	210.0 (2,260)	100	73.7 (182)

NOTE:

(1) For further information see Town of Leduc General Municipal Plan and Town of Leduc, Economic Policy Report.
(2) Net Hectares (Acres) of central business district represents its likely maximum extent.
(3) The amount of commercial development in the northern industrial area, particularily along Airport Road and realigned Highway #2, is difficult to estimate at this time.

development south, southeast and northeast from the present commercial area is generally the oldest and of a low average quality, these directions are recommended as being the most suitable for the future expansion of the C.B.D.

Every larger urban municipality needs, for the proper functioning of its urban systems, a strong nucleus of commercial activities in the form of a central business district. If the C.B.D. is to function satisfactorily, a functionally focused arrangement of its major activities is required. This arrangement as a rule involves a concentration of the most important town-wide and regional service land uses in an area characterized by the best accessibility and the capability for high density development. Leduc's C.B.D. area is presently developed at a rather uniformly low density and consequently does not possess as yet this kind of a focus.

In terms of overall accessibility, the highest potential for the development of a future high density core in the C.B.D. undoubtedly lies in the general area around the intersection of 50th Avenue and 50th Street and, in particular, the south-southeast part of the intersection which is not restricted by the International Airport noise contours.

Other advantages of this area include its closeness to the existing and potential areas of higher density residential development as well as the fact that it is adjacent to a large park which could be integrated into the downtown complex as a part of the recreation amenities serving not only the downtown residents but also the C.B.D. employees and shoppers. Higher density office development contemplated for the downtown core could be integrated with existing provincial government offices and the new civic complex tentatively planned for the vicinity of north Alexandra Park. The park itself could visually enhance the future civic centre and emphasize its importance as a landmark of the Town.

The short-term strategy for downtown area development is as follows:

(i) to channel additional commercial devel-

opment to the full block wide strip along 50th Avenue and to the northeast expansion area (given the N.E.F. contour limits);

(ii) to encourage higher density commercial redevelopment in the vicinity of the intersection of 50th Street and 50th Avenue while respecting the N.E.F. contour limitations;

(iii) to initiate a central area study which would provide a basis for the Central Area Redevelopment Plan;

(iv) to declare a portion of the southeast expansion area a Direct Control District for the purpose of avoiding redevelopment which would not be consistent with the future high density character of the area.

(v) to begin assembling land in the Direct Control District for the future civic complex facilities and/or other purposes the Town may deem necessary.

A longer term strategy for downtown development should be founded on the recommendations of the central area redevelopment study.

The Town should plan to accommodate a greatly expanded commercial base, not only by encouragement of downtown development, but also through the designation of a sub-regional shopping centre site capable of accommodating approximately 37 161 sq. m. of G.L.A. (400,000 sq. ft. G.L.A.) or 16 hectares (40 acres) of land.

Designation of a sub-regional shopping centre site would be an immediate step which the Town could take in order to fulfill the shopping needs of existing and prospective residents. Such an action would be a clear statement to the private sector of the Town's willingness to accommodate such development. A general area suitable for a sub-regional shopping centre site has been identified and the Town will request the land development interests north of Highway #39 and west of Highway #2 to incorporate a viable 16 net hectare

(40 acre) site capable of accommodating a 37 161 sq. m. (400,000 sq. ft.) sub-regional shopping centre in their development plans. The site should have good visibility from major transportation routes, appropriate accessibility and proximity to high density forms of housing.

The first phase of the sub-regional shopping centre, ranging in size between 13 935 - 18 580 sq. m. (150,000 - 200,000 sq. ft.) of G.L.A., can be expected to occur within the next five years. The actual timing is likely to depend on the speed of residential development in the western portion of the Town. If the shopping centre development proposal conforms to the aforementioned conditions the development should be allowed to take place without any delay since no adverse effect is expected on the C.B.D. The second phase of the sub-regional shopping centre can be expected within the next ten years. The timing of its approval by the Town may be tied to progress of the redevelopment of the C.B.D. area, as proposed by the central area redevelopment plan.

Commercial space, totalling in the order of 13 935 - 18 580 sq. m. (150,000 - 200,000 sq. ft.) of gross leasable area (6 - 8 hectares or 15 - 20 net acres of land), could be provided by several neighbourhood and/or local commercial centres in existing and proposed residential expansion areas. After the establishment of a sub-regional shopping centre or significant progress on downtown redevelopment, additional neighbourhood centres, of no more than 2 hectares (5 acres) in area or 4 645 sq. m. (50,000 sq. ft.) of gross leasable area to serve the convenience shopping requirements of up to 10,000 residents, would be permitted. The C.B.D. and the community/sub-regional shopping centres are expected to perform this function for the adjacent residential areas. However, prior to the establishment of a sub-regional shopping center and progress on downtown redevelopment, additional shopping areas should be limited to 1.2 hectares/ 2 789 sq. m. (3 acres/ 30,000 sq. ft.) of gross leasable area. Small convenience shopping areas of approximately .4 hectare (1 acre) in size may be permitted on their merits as demand warrants since such uses will not compete with the central business district or sub-regional shopping centre.

activities which display the greatest tendencies toward metropolitan decentralization.

Industrial firms require for their operations, not only inexpensive land and good transportation connections, but also a sufficient labour pool on which to draw. A suburban population often contains, particularly in the initial stages, a very large proportion of higher income workers whose educational and related occupational characteristics predispose them for the employment found in the downtown area of a central city rather than that offered by decentralizing manufacturing firms. For this reason, the population size of a municipality and the corresponding size of its labour force, as well as its housing mix and associated diversity of the local labour pool, can be important determinants of a municipality's ability to attract industrial development.

As noted earlier Leduc traditionally has had a strong commercial sector but the size of its industrial sector has been until recently relatively limited. In 1978 only 24 net hectares (60 net acres) of land were developed for industrial purposes. With recent extensive servicing of new industrial land, however, have come some rather dramatic changes in 1979. During that year alone the value of industrial building permits issued by the Town surged to $6.5 million (five times the value of industrial buildings permits in the entire 1971-1978 period) and a number of new warehousing, distribution and manufacturing firms chose to locate in Leduc. The extraordinary size of this new growth indicates that an important turning point has probably been reached by the Town in its quest for greater self-sufficiency and a better balanced economic base. This view seems to be supported by the recent continuation of strong industrial growth as well as by the January 1, 1980 annexation of 388 hectares (960 acres) of potentially prime industrial land to Leduc.

The recent economic growth of the Town and the resultant employment implications are reflected in Table 3 which summarizes information on the place of employment of Leduc's residents. As can be seen from the table, the proportion of the local labour force employed in the Town has been steadily increasing (from 36.4% in 1978 to 37.5% in

The remaining projected commercial floor space (24 154 - 39 019 sq. m./15 - 24 net hectares or 260,000 - 420,000 sq. ft./37 - 60 net acres) of land) is expected to be located in the northern industrial area to serve the industrial area work force and the travelling public, as well as to accommodate land extensive commercial enterprises such as retail warehousing, automobile, farm machinery and building product sales. These enterprises should be located in a way which would provide a suitable transition from commercial to light industrial uses. The area along 50th Street north of the downtown enjoys good access and visibility for those types of uses and would result in a relatively low intensity of development under the airport flight path.

The recently approved annexation of industrial land to the Town extended Leduc's northern boundary to include land adjacent to Airport Road. The recently constructed large (164 units) hotel on the southern edge of the Nisku Industrial Park provides evidence that the Airport Road area has a significant airport-oriented commercial development potential.

Industrial Development

As previously mentioned, information from the 1979 community survey indicates that Leduc's residents are generally in favour of the Town's growth and that increased employment opportunities as well as improved conditions for business have been perceived by the respondents as important benefits of growth. The survey results also suggest that an opportunity to live close to the place of employment has been one of the more significant reasons why people have moved to the Town. Additionally people presently living in Leduc view the expansion of the local industrial sector, not only as a source of more employment opportunities, but also as a means of balancing the municipal tax base so that urban services can be provided at a reasonable level of residential taxation.

The experience of other North American metropolitan areas has been that industrial development usually follows residential development to decentralized metropolitan locations and that manufacturing and related storage, wholesaling and transportation establishments are among those economic

activities which display the greatest tendencies toward metropolitan decentralization.

Industrial firms require for their operations, not only inexpensive land and good transportation connections, but also a sufficient labour pool on which to draw. A suburban population often contains, particularly in the initial stages, a very large proportion of higher income workers whose educational and related occupational characteristics predispose them for the employment found in the downtown area of a central city rather than that offered by decentralizing manufacturing firms. For this reason, the population size of a municipality and the corresponding size of its labour force, as well as its housing mix and associated diversity of the local labour pool,can be important determinants of a municipality's ability to attract industrial development.

As noted earlier Leduc traditionally has had a strong commercial sector but the size of its industrial sector has been until recently relatively limited. In 1978 only 24 net hectares (60 net acres) of land were developed for industrial purposes. With recent extensive servicing of new industrial land, however, have come some rather dramatic changes in 1979. During that year alone the value of industrial building permits issued by the Town surged to $6.5 million (five times the value of industrial buildings permits in the entire 1971-1978 period) and a number of new warehousing, distribution and manufacturing firms chose to locate in Leduc. The extraordinary size of this new growth indicates that an important turning point has probably been reached by the Town in its quest for greater self-sufficiency and a better balanced economic base. This view seems to be supported by the recent continuation of strong industrial growth as well as by the January 1, 1980 annexation of 388 hectares (960 acres) of potentially prime industrial land to Leduc.

The recent economic growth of the Town and the resultant employment implications are reflected in Table 3 which summarizes information on the place of employment of Leduc's residents. As can be seen from the table, the proportion of the local labour force employed in the Town has been steadily increasing (from 36.4% in 1978 to 37.5% in

1980) while the Town's traditional dependence for employment on the City of Edmonton has been declining (41.9% in 1978 as opposed to 33.7% in 1980). At the same time Nisku Industrial Park has emerged as an increasingly more significant employment centre. The proportion of Leduc's employed labour force working at Nisku has nearly doubled in the last two years, rising from 6.6% in 1978 to 12.9% in 1980.

TABLE 3

PLACE OF WORK OF LEDUC'S RESIDENTS
(1978, 1979, 1980)

	1978		1979		1980	
	No.	%	No.	%	No.	%
Leduc	1,613	36.4	1,711	36.8	1,856	37.5
Edmonton	1,857	41.9	1,763	37.9	1,667	33.7
Airport	328	7.4	321	6.9	396	8.0
Nisku	293	6.6	437	9.4	639	12.9
Other	341	7.7	423	9.1	388	7.8
Total	4,432	100.0	4,655	100.0	4,946	100.0

Source: Municipal Census 1978, 1979, 1980.

Note: Columns may not sum to 100.0 due to rounding

Given the existing excellent outlook for continued rapid population and economic growth of Alberta and the Edmonton metropolitan area, Leduc's prospects for further industrial development are also bright. This is mainly because of the Town's exceptionally good locational attributes - its proximity to road (Highways #2 and #39) rail (Canadian Pacific Railway mainline and Hoadley branch line) and air transportation (Edmonton International Airport), as well as its access to a growing local and metropolitan labour pool. The fact that the Town's industrial area is adjacent to the large

established Nisku Industrial Park and forms a logical extension of this rapidly growing industrial complex represents an additional locational advantage which should be taken into acount in determining Leduc's industrial development policies.

Nisku Industrial Park is undoubtedly the most successful of the Edmonton metropolitan area industrial parks, in terms of both the rate and amount of development. It has been estimated that the average rate of land consumption in the whole Nisku complex between 1972 and 1978 was over 57 net hectares (140 net acres) per year. More recently, yearly consumption has been well over 81 net hectares (200 net acres) per year. With prospects of continued exploration for gas and oil and a generally buoyant metropolitan economy, the Nisku Industrial Park can be expected to grow in the foreseeable future at least at its historical average rate.

The Town of Leduc has been designated by the proposed Edmonton Regional Plan as one of three industrial growth centres in the Edmonton metropolitan area. The Town's industrial development can undoubtedly be both complementary to, and competitive with, the adjacent Nisku industrial area.

The majority of the industrial development located in the Nisku industrial area is primarily oriented towards serving the oil and gas industry. In the last several years, however, the overall favourable locational characteristics of the area have attracted a number of transportation and distribution operations as well as some light manufacturing firms. Those land intensive light manufacturing and distribution firms considering a location in the Leduc-Nisku industrial complex can be expected to prefer a site in Leduc's fully serviced industrial parks. When the existing industrial area of the Town is expanded to its logical western boundary - realigned Highway #2 - it will contain over 607 gross hectares (1,500 gross acres) of land. This amount of land, can be expected to satisfy the Town's requirements for fully serviced industrial land until approximately the year 2001. An additional 283 - 324 hectares (700 - 800 acres) may be needed in order to provide additional choice and a longer term supply of

industrial land. The eastern expansion industrial area between Telford Lake and Airport Road will have to be relied upon to meet this type of demand.

2.2.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

The Town of Leduc's economic development goal is to *STRENGTHEN THE OVERALL COMMERCIAL AND INDUSTRIAL STRUCTURE OF THE TOWN TO MEET THE NEEDS OF THE EXPANDING COMMUNITY AND ITS ROLE IN THE EDMONTON REGION.*

The following objectives and policies indicate the municipal actions which will assist in realizing the above goal.

OBJECTIVE:

To encourage the continuing development of a full range of commercial activities in the Town.

POLICIES:

(i) The Town shall designate lands of sufficient size and in suitable locations in order to provide for a variety of types of commercial areas.

(ii) The Town will strive to maintain the downtown area as the location of at least fifty-five percent of the municipality's commercial floor space.

(iii) The Town will request that the development interests west of Highway #2 and north of Highway #39 incorporate in their development plans a 16 hectare (40 acre) commercial site with appropriate access, preferably with highway visibility and nearby multiple family housing.

(iv) The Town may permit one neighbourhood shopping area, no greater than 1.2 hectares (3 acres) in size and

2 787 sq. m. (30,000 sq. ft.) of gross leasable area, to serve a tributary population of 10,000 or more residents.

This policy will apply prior to the establishment of a sub-regional shopping centre or significant downtown redevelopment. Following establishment of a sub-regional shopping centre or significant downtown redevelopment, the Town will reconsider its commercial policies and may permit additional or enlarged neighbourhood shopping areas of up to 2 hectares (5 acres) in size and 4 645 sq. m. (50,000 sq. ft.) of gross leasable area. Small convenience shopping areas of approximately .4 hectare (1 acre) may be permitted on their merits as demand warrants.

(v) The Town will permit those commercial activities which require large storage areas or which serve the travelling work force to locate in the light industrial/commercial area immediately north of the existing central business district and in the vicinity of Airport Road.

(vi) The Town will encourage industrial development as part of an effort to attract additional shoppers to the municipality and to increase the proportion of shopping done in Leduc by local residents.

OBJECTIVE:

To promote safe, efficient and attractive commercial areas.

POLICIES:

(i) The Town will prepare an Area Redevelopment Plan for the central area of the Town to guide all public and private redevelopment in the existing central business district.

(ii) The Town will designate the portion

of the south-southeast downtown expansion area bounded by 51st and 48th Streets and 49th and 47th Avenues as a Direct Control District with the aim of preventing any redevelopment in this area until the Central Area Redevelopment Plan determines the most desirable uses and the related land use categories for the area.

(iii) The Town will encourage redevelopment of and increased density in the existing downtown area.

(iv) The Town will encourage new office development and redevelopment in the downtown area and will discourage office development in decentralized shopping areas.

(v) The Town may permit high density housing within the downtown area below the 30 N.E.F. contour in conjunction with commercial and office development.

(vi) The Town will encourage new major commercial facilities to locate within the downtown area.

(vii) The Town will encourage private sector assistance and involvement in the preparation of a detailed Central Area Redevelopment Plan.

(viii) The Town will define, in conjunction with the preparation of the Central Area Redevelopment Plan, a comprehensive parking policy for the downtown and the rest of the municipality.

A part of such a policy may be the continuance of the parking fund, from the cash-in-lieu-of-parking contributions, which would be used for the purchase of land or the development of facilities for parking.

(ix) The Town will encourage commercial

development to be of the highest quality, particularly adjacent to major transportation routes.

OBJECTIVE:

To encourage the continuing development of a full range of industrial activities in order to increase community employment opportunities, minimize home to work travel, and improve the Town's tax base.

POLICIES:

(i) The Town will strive, in conformity with the Edmonton Regional Plan, to develop Leduc as a satellite metropolitan industrial centre.

(ii) The Town will encourage the establishment of a variety of industrial areas which are functionally integrated, fully serviced and compatible with the non-industrial areas of the Town.

(iii) The Town will designate lands of sufficient size and in suitable locations in order to provide for a variety of types of industries.

(iv) The Town will continue to seek industries which could successfully locate within the community.

(v) The Town will cooperate with local business groups in promoting the municipality as a good place to live and establish a business.

(vi) The Town will seek the assistance of other levels of government in order to promote the Town's industrial development advantages.

The stress in promotion should be the fact that the Town is a part of the rapidly developing Leduc-Nisku industrial complex.

OBJECTIVE:

To ensure the creation of high quality industrial areas which are compatible with the non-industrial areas of the Town.

POLICIES:

(i) The Town will continue to require industrial development to locate in the area north and east of the existing industrial parks in order to maintain a separation between residential and industrial development.

(ii) The Town will encourage development of fully serviced industrial parks on lands with the best accessibility and greatest suitability for higher intensity industrial land uses.

(iii) The Town supports the concept that fully serviced industrial and commercial areas should be located within urban areas and semi-serviced development should be located in rural municipalities.

(iv) The Town will attempt through its residential development policies to attract a diversified labour force suitable for industrial development.

(v) The Town will encourage high standards of industrial subdivision and site design.

(vi) The Town will ensure that industrial development adjacent to arterial and major collector roadways in industrial areas is of the highest quality.

2.3 HOUSING AND NEIGHBOURHOOD DESIGN

2.3.1 PREAMBLE

Leduc's rapid population growth in the past decade was accompanied by a significant increase in its housing stock; from 1,130 to 3,526 dwelling units between 1971 and 1980. The housing stock is primarily composed of single detached dwellings (77.8 percent of all the dwelling units in the Town in 1980). Other housing types include duplexes, (2.5 percent of the housing stock); townhouses (4.9 percent); apartment units (10.6 percent); and mobile homes (4.2 percent). During the same year, 76.6 percent of the households in the Town owned their homes, while 23.4 percent lived in rental accommodation

There are many factors which are important in an individual's decision to purchase a house or to make a move from one residence to another. These include the stage in the life cycle, family size, people's values and aspirations, and their financial situation.

The community survey results indicate that there is a fairly strong relationship between the various stages in the life cycle and the type of house people occupy. The large majority of married couples with children, senior citizens, and to a lesser extent couples with no children occupy a single family dwelling. Single parents and unmarried adults have a greater tendency, than those in other stages of the life cycle, to live in a townhouse or an apartment unit. There is also a strong correlation between house type and tenure (most single family dwellings are owned, while multiples tend to be rented); and both of these are related to income. The higher the income level, the greater the propensity to own and hence occupy a single family dwelling.

This is an important consideration respecting the Town's housing policy in so far as the creation of a labour pool is concerned. If the Town is to attract a diversified labour force suitable for industrial development, then a variety of housing types and dwelling sizes must be provided for people in different stages of the life cycle and with various income levels.

The community survey results indicate that the majority of Leduc residents are either very satisfied or somewhat satisfied with their dwelling units. However, people in single family dwellings are generally more satisfied with their dwelling units than those people who occupy a townhouse or an apartment. The dissatisfaction with multiple units is particularly related to interior playspace, noise level, exterior playspace and exterior space. It is necessary to ensure that new developments are well designed, not only to meet the needs of prospective Town residents, but also to enhance dwelling satisfaction which will in turn encourage residential stability within the community.

Most Leduc residents are satisfied with their neighbourhoods as a place to live. While there are many factors which might enhance people's satisfaction with their neighbourhood, the community survey results indicate that neighbourhood satisfaction is also directly related to housing satisfaction, regardless of house type.

There is a fairly strong relationship between the stage in the life cycle and those attributes that are considered to be desirable in a neighbourhood. Unmarried adults are primarily concerned with proximity to work and shopping facilities. Couples with no children consider proximity to work in the selection of a neighbourhood, however neighbourhood facilities and design are influential factors in their locational decisions. Married couples with children place a high priority on proximity to schools. Seniors rate the proximity to shopping facilities as a very important attribute in a neighbourhood.

The location of a neighbourhood and the qualities associated with it are factors that are taken into account when individuals make locational decisions. Of prime importance is whether the area is conveniently accessible to essential activities such as work, shopping, schooling and recreation. The satisfaction with each neighbourhood is thus, to a large degree, a function of the availability of these services and their importance to the individual affected.

Neighbourhood design must take into account the

relationship between housing type and the differing needs and values of the people who are likely to live in a neighbourhood. Schools should be situated within areas of housing types that are oriented towards households with children. Housing types that are geared towards households with no children should be advantageously sited with ease of access to employment areas and shopping facilities. The vehicular circulation system should utilize a hierarchial road network to provide safe circulation within the neighbourhood and arterial roads should direct traffic to major destinations in the Town.

Generally, Leduc residents do not favour the development of neighbourhoods containing a mixture of different housing types and densities. However, the development of neighbourhoods which are socially mixed in terms of income, occupation and age is favoured by most Town residents. Tenure is a determining factor in people's attitudes towards homogeneity and heterogeneity in neighbourhoods.

A mixture of housing types should be encouraged at the Area Structure Plan level in order to ensure that a variety of housing types is provided. However, some degree of homogeneity in housing types should be maintained within neighbourhoods. The Town may wish to set maximum density figures for new residential areas in order to control the actual mix of housing types. The Town should ensure that there is a gradual transition in dwelling density and building height in specific areas where a mixture of housing types is proposed. Multiple housing areas should be of limited size in order to minimize the perception of higher density.

Neighbourhood design must aim at creating a satisfying and attractive residential environment. Various urban design issues should be considered in the assessment of development proposals. These may include such concerns as the need for architectural control, the design and distribution of parks and energy conservation in building and site design. The Town may wish to prepare urban design guidelines for the preparation and review of plans and development proposals.

The setting of housing targets is an integral part

of the Town's goal to accommodate growth and future housing needs. This will require projecting housing requirements, monitoring housing production, and identifying housing needs that are not being met. Housing targets should be reviewed periodically so as to reflect changing market conditions.

2.3.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

The basic housing goal of the Town is to *ENCOURAGE THE PROVISION OF A VARIETY OF WELL DESIGNED AND AFFORDABLE TYPES OF HOUSING AND HIGH STANDARDS OF NEIGHBOURHOOD AND SITE DESIGN FOR ALL FUTURE DEVELOPMENT AND REDEVELOPMENT.*

The following objectives and policies specify the variety of ways in which the Town will seek to achieve the above noted goal.

OBJECTIVE:

To ensure that residential expansion takes place in an efficient and economical manner.

POLICIES:

(i) The Town may require that an Area Structure Plan be prepared prior to an application for subdivision.

An Area Structure Plan is a plan which has been legally adopted by a municipality pursuant to the provisions of The Planning Act, 1977.

The Area Structure Plan shall

A. describe:

1) the sequence of subdivision and development proposed for the area,

2) the land uses proposed for the area, either generally or with respect to specific parts of the area,

3) the density of population proposed for the area either generally or

with respect to specific parts of the area,

4) the location of transportation and pedestrian routes and public services and utilities requirements,

5) the provision of Municipal Reserve(s), Municipal/School Reserve(s), Environmental Reserve(s) and park or school land not included under a reserve category,

6) the preservation of physical features.

B. contain such other matters as Council considers necessary.

(ii) The Area Structure Plan shall provide a context for more detailed planning at the subdivision and site plan level.

(iii) Where there is no bylaw adopting an Area Structure Plan all applicants for residential development with or without other associated land uses shall at the option of the Town submit an Area Structure Plan, if one or more of the following conditions apply:

(a) the title area(s) will be developed in more than one stage requiring a series of subdivision applications,

(b) the subdivision application(s) will create a substantial number of residential parcels,

(c) the proposed development will create a mixture of residential and commercial and/or industrial land uses,

(d) the proposed development will mix housing of differing types and/or densities, and

(e) if storm water management and/or public utility systems are required.

(iv) The Town may require the inclusion of servicing concepts and detailed geotechnical studies as part of Area Structure Plans and/or prior to the approval of subdivision plans, in order that the serviceability and suitability of the land for the proposed uses may be determined.

(v) The Town may require the preparation of a detailed servicing scheme prior to Area Structure Plan or subdivision plan approval in order to determine the feasibility of all subdivision proposals.

(vi) The Town will require that any future mobile home parks are situated in appropriate locations and that they are incorporated into the overall community.

(vii) The Town will encourage wherever practical and desirable, the infilling of vacant lots and redevelopment in residential areas in order to maximize the use of existing services and facilities.

OBJECTIVE:

To endeavour to provide a satisfactory mix of housing which meets people's life styles, stage in the life cycle, and aspirations.

POLICIES:

(i) An overall housing mix of 75 percent single family dwellings and 25 percent multiple housing at a density of approximately 40 (16) persons per gross hectare (acre) will be encouraged.

Individual housing developments may vary from this

guideline, however the Town should encourage the provision of a variety of housing types in various locations.

The Town will monitor housing demand and will revise the housing mix guideline as necessary to ensure that housing needs are being met.

(ii) The Town will encourage a range of options with regard to tenure to accommodate the differing aspirations and socio-economic characteristics of existing and prospective residents.

This includes not only ownership and rental accommodations; but may also include condominium, co-operative and nonprofit housing.

(iii) The Town will encourage the construction of housing so as to meet the Town's population growth objective.

Housing targets should be re-adjusted to meet changing market conditions.

(iv) The Town will encourage the provision of lower cost single family housing to the extent necessary to meet local needs.

(v) The Town will encourage a variety of housing types and a range of dwelling and lot sizes in order to meet the needs of existing and prospective residents.

(vi) The Town will encourage an adequate supply of rental accommodation to meet local needs.

(vii) The Town will encourage the provision of social housing to meet local needs that cannot be satisfied through the private market.

(viii) The Town will require that schools are located within large areas of single family and family oriented multiple housing.

(ix) The Town will encourage non-family type accommodation to be directed to areas with easy access to employment centres and community facilities.

(x) The Town will encourage the location of senior citizen housing on sites and in developments which best meet the special needs of the elderly.

The following table presents the service distances that are recommended for the location of senior citizen housing (see Table 4).

(xi) The Town will ensure that multiple housing sites are spread throughout a neighbourhood rather than being concentrated in one area.

Multiple housing sites should be of limited size so as to prevent adverse resident reaction and visual monotony. It is suggested that ideally the size of multiple housing parcels be limited to less than 1.2 hectares (3 acres).

(xii) The Town will require that different housing types are well integrated in a neighbourhood and that only compatible housing types are sited adjacent to each other.

Small lot single family dwellings, semi-detached units and street townhousing can be quite compatible with single detached dwellings. These house types may be encouraged within residential areas where they have the characteristics of single detached housing since a variety of acommodation would be provided.

OBJECTIVE:

To promote high standards of safety and amenity in all residential areas.

POLICIES:

(i) The Town will require that neighbourhoods are of a size which

TABLE 4

NEIGHBOURHOOD SERVICE CRITICAL DISTANCE RECOMMENDATIONS

FOR SENIOR CITIZEN HOUSING

SERVICE	CRITICAL DISTANCE	MAXIMUM RECOMMENDED DISTANCE
BUS STOP	on-site to 3 blocks	1 block
OUTDOOR AREA	on-site to 3 blocks	3 blocks
LAUNDROMAT	on-site	on-site
GROCERY STORE	1-10 blocks	6 blocks
SUPERMARKET	1-10 blocks	6 blocks
BANK	1-10 blocks	6 blocks
POST OFFICE	1-3 blocks	3 blocks
DEPARTMENT STORE	1-3 blocks	3 blocks
CLEANERS	1-11 blocks	6 blocks
SENIOR CENTER	on-site	on-site
BEAUTY/BARBER	on-site to 10 blocks	10 blocks
PHYSICIAN	1-10 blocks	10 blocks
BUTCHER SHOP	1-10 blocks	6 blocks
SNACK BAR	1-10 blocks	10 blocks
PUBLIC LIBRARY	on-site to 10 blocks	10 blocks
DENTIST	1-10 blocks	10 blocks
EYE DOCTOR	1-10 blocks	10 blocks
FOOT DOCTOR	indeterminate	10 blocks
CENTER (FOR ALL AGES)	used as a senior center	on-site
MOVIE	indeterminate	10 blocks
CHURCH/SYNAGOGUE	indeterminate	indeterminate (1)
BAR	no importance	no importance

(1) Indeterminate critical distance due to high percentage of persons who do not use, and only small number who do use.

Source: Robert J. Newcomer. "An Evaluation of Neighbourhood Service Convenience for Elderly Housing Project Residents" in the Behavioural Basis of Design, Community Development Series, Volume 28. Dowden, Hutchinson & Ross, Inc. Stroudsbourg, Pennsylvania, 1976.

provides a desirable living environment.

The expected population capacity of neighbourhoods should be established through reference to the elementary school capacity and by the number of people required to support neighbourhood facilities and services.

The geographical area should be delineated so as to provide easy and safe access to schools and to neighbourhood facilities and services.

(ii) The Town will prevent the intrusion of incompatible land uses into existing and proposed residential areas.

Certain commercial, retail, recreational and other nonresidential uses may be included in or located adjacent to neighbourhoods so as to increase neighbourhood richness, vitality and convenience. These uses should be sensitively designed to minimize any adverse effects.

(iii) The Town will ensure that roadways in residential areas minimize nuisance factors and ensure a safe environment for pedestrians.

The street hierarchy should provide a safe and quiet residential environment by eliminating unnecessary through traffic. Driveways should lead to local residential streets which in turn should lead to collector streets. Local streets should connect with collector roads rather than arterials.

(iv) The Town will endeavour to minimize noise in residential areas through site planning and dwelling orientation.

New development should use the natural landscape to advantage in noise attenuation.

Dense stands of trees provide psychological but limited acoustical benefits.

Solid walls, earth berms and dense landscaping

should be used to shield against intense noise sources.

Where intense noise sources exist, commercial and institutional buildings can be designed for use as sound barriers to protect residential areas.

New residential buildings should be located as far as possible from noise sources.

Walls and floors between multiple dwellings should be sound proofed.

(v) The Town will encourage where appropriate the conservation and improvement of natural features.

New developments should conserve and use to advantage existing site features such as trees, grade changes and bodies of water; these elements should be used to effect a balance of man-made and natural features.

(vi) The Town will encourage the design of common spaces to provide an interesting and aesthetically pleasing residential environment.

(vii) The Town will encourage the varying of house placement and setbacks, and the sensitive treatment of exterior building materials, so as to avoid monotony.

A harmonious complement of building and paving materials and finishes should be used in dwelling groupings in order to establish neighbourhood identity.

(viii) The Town will require that there is a high quality of housing design to meet the needs of prospective residents.

Required dwelling floor areas, particularly in multiple family dwellings, should increase in size as the total number of bedrooms increase. This will permit the accommodation of a greater number of residents in larger units and meet the need for play areas for children.

Adequate storage space and laundry facilities should be provided in multiple housing.

(ix) The Town will require that dwellings have adequate and well designed private outdoor space.

Above grade private outdoor space, such as balconies, roof decks, and terraces, are encouraged in units that do not have direct access to the ground. These should be large enough to ensure their usability.

Private outdoor living areas should be within clear view of, and easy access to, the interior living areas of the unit. This allows for a greater usability of the space and is of particular importance to families with young children.

Public outdoor living areas should be established consistent with expected population densities and demographic characteristics and should be located and designed so that usability and maintenance are ensured.

(x) The Town will ensure that privacy is enhanced through dwelling design.

There should be a smooth transition from public to private space. Porches, gardens and other semi-private transition zones between public outdoor space and private indoor space should be provided to protect the visual privacy of dwellings. This zone can also be defined through the use of gates, fences and landscape buffering.

Dwelling unit windows should face away from or be sufficiently set back from other dwelling unit windows or should be landscaped in such a way as to ensure visual privacy.

(xi) The Town will ensure that any future mobile home parks are well-designed and adequately landscaped.

(xii) The Town will ensure that the design, location and size of parking areas in multiple family housing developments are functional and aesthetically pleasing.

Adequate parking areas should be provided to meet the increasing proportion of small cars and recreational vehicles.

Adequate visitor parking must be provided.

Parking facilities adjacent to residential units should be well screened or buffered so as to prevent air pollution and excessive noise levels.

Landscaping of parking areas should be encouraged so as to break down their scale, provide wind protection and shade, and create a more visually pleasing environment.

(xiii) The Town will encourage the development of innovative housing schemes, including new building forms, design and construction techniques, if it can be demonstrated that there would be sufficient benefit to existing and prospective residents to warrant the departure from conventional development standards.

(xiv) The Town will endeavour to monitor resident satisfaction with respect to housing and neighbourhood design.

Land developers and house builders should be encouraged to conduct and make available to the Town the results of post-development resident satisfaction surveys.

(xv) The Town will encourage the use of design elements to foster a sense of security in dwelling units and in neighbourhoods.

Peep-holes, door area lighting, dead-bolts and window locks should be provided for all types of dwellings.

Multi-unit complexes which require common building entrances should have intimately scaled lobbies to encourage interaction between neighbours and to give residents a sense of security. Strangers can be easily identified as intruders within this semi-private residential territory.

The security of resident parking areas should be facilitated through the direct surveillance from dwellings and the provision of sufficient night lighting. This may also discourage vandalism or theft.

Units should be located and provided with windows in such a way as to allow for the surveillance of passageways, streets, and local paths, thereby minimizing vandalism and fostering a sense of security.

Common spaces and facilities will be more apt to be used if users feel they are safe and secure. Dwelling units should overlook common areas and common circulation routes, and there should be adequate night lighting.

OBJECTIVE:

To ensure that an adequate standard of municipal residential services will be available to the residents of all types of housing.

POLICIES:

(i) The Town will ensure that the location and types of open space, transportation routes and neighbourhood facilities and services correspond to the density and demographic characteristics of the neighbourhood.

(ii) The Town may periodically wish to reassess its standards and regulations for house set-backs and lot sizes, road widths and servicing.

Future resident surveys will be useful in determining the adequacy and suitability of Town standards and regulations.

OBJECTIVE:

To assess the possible impacts of proposed major residential developments on the natural environment.

POLICY:

(i) The Town will require that all subdivision and site plans consider the existing vegetation, topography, wildlife, soils, drainage and climatic conditions.

OBJECTIVE:

To promote energy conserving and land efficient residential development.

POLICIES:

(i) The Town will promote, wherever feasible, the contiguous development of new residential areas so as to reduce the wastage of land.

Strict adherence to the above policy may limit competition in the local development industry. If such a problem is evident, the Town may wish to bypass vacant land in order to ensure that the municipality's future housing needs are met.

(ii) The Town may encourage unconventional subdivision designs, such as cluster development, which will result in a more efficient use of land.

(iii) The Town will encourage, where practicable, residential designs that take into account climatological and topographical elements in order to reduce energy loss.

Window and roof orientation to the south will provide passive heat gain in the winter from the sun and windows should be shielded by deciduous trees or overhangs which block the hot summer sun.

North facing windows should be minimized to control winter heat loss or, where provided, should be shielded from cold winds with dense coniferous trees.

(iv) The Town will encourage proper building design and detailing so as

to reduce the unnecessary loss of energy.

Unit design should minimize heat loss in winter and maximize heat gain where possible. This may be achieved in a number of ways including:

(a) minimizing the exterior surface area of the buildings,

(b) providing a high standard of insulation,

(c) avoiding north facing windows,

(d) using double or triple glazed windows, and

(e) ensuring individual unit energy use metering to encourage conservation efforts.

2.4 PROTECTIVE, HEALTH AND SOCIAL SERVICES

2.4.1 PREAMBLE

PROTECTIVE SERVICES

Police

The Town of Leduc is policed by a thirteen member detachment of the Royal Canadian Mounted Police.

The 1979 community survey revealed an overall high degree of satisfaction with police services and few suggestions for additional or improved services. Residents generally feel safe in the Town with the major concern being possible residential break and entries. Despite this specific concern, only one quarter of households have doors equipped with dead-bolt locks.

The crime rate in Leduc has increased at a slower rate than its population growth and is lower than for Alberta and other Canadian communities of a similar size. The Town's police protection policies seek to maintain the high level of service and security now enjoyed by residents as the Town continues to develop as a satellite industrial centre.

Fire

The Town of Leduc Fire Department is a twenty-six member all volunteer force augmented by a full-time paid fire prevention officer. The department uses modern firefighting equipment including three pumper trucks with fire flows of 47 litres per second (L/s) (625 gpm), 79 L/s (1,050 gpm) and 63 L/s (840 gpm); the latter has a ladder attachment. Also available to the Town by agreement are pumper units rated at 38 L/s (500 gpm) and 63 L/s (840 gpm).

Mutual aid agreements exist with the City of Edmonton and the Towns of Camrose and Wetaskiwin. Peacetime disaster mutual aid agreements exist with the County of Leduc and the Towns of Beaumont, Devon, Calmar, Thorsby, Warburg, Breton and New Sarepta.

Residents of Leduc are generally satisfied with

the fire protection afforded by the existing volunteer force. The improvements suggested by those who have actually called the fire department relate primarily to the speed and efficiency of the service. The Town Council recognizes that fire protection services must change in response to continued Town growth. In accord with that view the Town employs a full-time fire prevention officer and utilizes modern telecommunications equipment. The other major suggestion by residents was for a full-time, paid firefighting force. Overall, the suggestion was not considered by residents to be an early priority for additional municipal expenditures, but nevertheless has been considered in plans for the future development of the Town.

HEALTH SERVICES

The Town of Leduc is now well served by a considerable number of health and social services including the Leduc General Hospital, the Leduc-Strathcona Health Unit, privately practising medical doctors, Tri-County Ambulance Services and a wide variety of social service programs.

The Leduc General Hospital

The Leduc General Hospital will be expanded to 120 beds in order to better provide major services such as:

(i) a full range of primary and secondary care,

(ii) availability of the basic specialties,

(iii) comprehensive general surgery on both an elective and emergency basis,

(iv) medical care including some capability for intensive and coronary care,

(v) complete maternity, new-born and pediatric care, and

(vi) a trauma unit capable of dealing with most emergency and orthopedic work.

Expansion of the Leduc General Hospital is especially timely since population forecasts indicate

continuing growth of the young family age groups and a corresponding heavy demand for hospital services. Leduc General Hospital expansion plans are consistent with suggested hospital improvements determined through the 1979 community survey including more/better facilities and equipment; more doctors, specialists and/or staff; and improved delivery, quality and efficiency of service.

The Leduc-Strathcona Health Unit

The Leduc-Strathcona Health Unit provides a wide range of public health services for the prevention of disease and disability, maintaining standards of health and promoting good health habits.

The community survey results reveal that almost half of the households have used the Leduc-Strathcona Health Unit in the last two years. Approximately 80% of the users are married couples with children. Population growth of the Town will require substantial staff increase. The Town has estimated future health unit requirements which are consistent with the Town's role as a major metropolitan growth centre.

Physicians

The physician to population ratio in the Town of Leduc (1:1,100) is comparable to the City of Edmonton. It is anticipated that such basic specialists as pediatricians, obstetricians/gynecologists and surgeons will be attracted to a larger, more modern hospital and this will therefore result in fewer people travelling to Edmonton for medical treatment.

Ambulance Service

Ambulance service is provided by Tri-County Emergency Medical Services with four vehicles and eleven staff. Approximately thirteen percent of Leduc households have used the ambulance service in the last two years. Among users of the service the most frequently suggested improvement was for more resources with an emphasis on paramedics and more vehicles. It is quite likely however that recent increases in staff and venicles have resolved any previously perceived deficiencies.

SOCIAL SERVICES

Alberta Social Services

Alberta Social Services provides several major services to Leduc residents including:

(i) a public assistance worker to aid those primarily in need of employment and housing,

(ii) a child protection worker dealing with juvenile protection and child abuse,

(iii) a child welfare worker concerned with foster children, foster homes and wards of the Alberta Government,

(iv) a mental health worker offering individual, marriage and family counselling and relaxation and group therapy,

(v) a life skills worker offering a rehabilitation program for people recovering from mental illness.

Day Care

Two privately operated day care centres, with a combined capacity of 140 children, are located in the Town. Recent monitoring of public demand has not indicated that further expansion of services is required immediately, however, population growth will result in the demand for additional capacity in the near future.

Publicly Assisted and Special Housing

A number of publicly assisted housing projects are located in Leduc including:

(i) the forty-two unit Linsford Place subsidized townhouse development which is being considered for expansion or possibly augmentation with a housing development on a new site,

(ii) the fifty, double unit, Planeview Manor Senior Citizen's Lodge which is planning a third wing of an, as yet, undecided

number of single units in addition to the fifty-one self-contained units recently approved for construction,

(iii) Salem Manor, which is sponsored by the Baptist Church of Alberta, has forty self-contained units and one hundred nursing beds and plans an additional fifty unit senior citizen lodge, and

(iv) the privately owned but government sponsored seventy-nine bed Parkland Nursing Home.

Special Transportation Society

The Leduc Special Transportation Society provides a dial-a-bus service for senior citizens and transportation to Edmonton for preschool and handicapped children to attend special classes.

Preventive Social Services

The Town of Leduc Preventive Social Services operates a number of projects including:

(i) family counselling,

(ii) Meals on Wheels, for the elderly and handicapped,

(iii) Homemakers Service,

(iv) Learning for Living which embraces a number of programs including Babysitter Safety, Ladies Morning Out, and Marriage Enrichment,

(v) youth projects emphasizing youth involvement in community service and community activities,

(vi) Volunteer Program,

(vii) Tiny Tots, a pre-kindergarten with capacity for one hundred children,

(viii) senior citizens activities, and

(ix) distress line.

The community survey results reveal that 21.6 percent of the households, in the last two years, have used at least one of the social services provided by the Town of Leduc. Approximately 90 per cent of the users were satisfied with the service received and felt that the services had met their needs. Although 42 percent of the users had suggestions for improvements, there was no one area of the service generating major concerns.

The large proportion (78 percent) of people not using social services may be a result of one or more factors, including:

(i) people not knowing about the services being offered,

(ii) people knowing about the services but having no need for the particular programs being offered, and/or

(iii) people knowing about the services but having little need for any social services.

It would appear that, on the whole, Leduc's various social service programs are suitable for the types of people (senior citizens and people with children) most likely to want and use such services.

Further planning of preventive social service programs should be based on an assessment of the needs of risk populations. These risk populations include teenagers, single parent families, de facto single parent families and senior citizens.

2.4.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

It is the goal of the Town of Leduc to *ENSURE THE PROVISION OF PROTECTIVE, HEALTH AND SOCIAL SERVICES WHICH WILL MEET THE NEEDS OF THE TOWN'S EXISTING AND PROSPECTIVE RESIDENTS*. The following objectives and policies specify the variety of ways by which the Town will seek to accomplish this goal.

OBJECTIVE:

To provide the necessary police protection services to the residents of Leduc.

POLICIES:

(i) The Town will continue to cooperate with the Royal Canadian Mounted Police personnel responsible for policing in Leduc.

(ii) The Town will endeavour to provide adequate financial and manpower resources necessary to maintain a high quality police force.

The Town will endeavour to maintain a ratio of one regular officer for each one thousand residents. The Town will review the space requirements of the Royal Canadian Mounted Police within the next ten years.

(iii) The Town will encourage the Leduc detachment of the Royal Canadian Mounted Police to continue monitoring trends in crime in order to provide necessary information for planning future police services.

(iv) The Town will encourage the Royal Canadian Mounted Police to publicize their activities in order to enhance community relations.

(v) The Town will encourage the Royal Canadian Mounted Police to continue to work with various community groups in an effort to foster an awareness of crime in Leduc and a preventive attitude among Town residents.

Such programs may include an educational program informing the community of the low rate of residential break and entries to allay unreasonable concerns. Other programs may encourage residents concerned about residential break and entries to take preventive measures such as installing deadbolt locks.

OBJECTIVE:

To provide the necessary protection services to the residents of Leduc.

POLICIES:

(i) The Town will continue to assess the adequacy of its firefighting equipment in conjunction with Fire Underwriters in order to effectively and efficiently protect life and property in the Town.

(ii) When the population of Leduc approaches 17,000 residents, the Town will assess the need for a combination volunteer and full-time firefighting staff.

(iii) When the population of Leduc approaches 30,000 people, the Town will assess the need for a full-time firefighting staff.

(iv) The Town will endeavour to continue its intermunicipal protective services agreements.

(v) The Town will consider the preparation of a Fire Master Plan for the purpose of guiding the Town's decision-making with respect to manpower, fire flow requirements, fire response times, and any additional matters of concern.

(vi) As the Town develops in the southeast, with Caledonia Park, and in the west, with a sub-regional shopping center, the Town will consider locating fire hall substations in those areas.

(vii) The Town will consider the purchase of additional aerial firefighting equipment if and when it removes the present building height restriction.

(viii) The Town will inform its residents

of the successful operation of, and high degree of overall community satisfaction with the existing fire department.

OBJECTIVE:

To encourage the provision of necessary health and social services for the community.

POLICIES:

(i) The Town will continue to cooperate with the Leduc General Hospital and Nursing Home District #83 Board in monitoring health care needs of the community.

(ii) The Town will encourage the Leduc General Hospital and Nursing Home District #83 Board to continue conducting periodic evaluations to determine if changes or additions are necessary in order to meet the health care needs of Leduc residents.

Community survey data will be made available to the Leduc General Hospital and Nursing Home District #83 Board upon request in order to assist it in the evaluation of existing and proposed services. Hospital services should be reviewed periodically due to possible changes in service requirements as a result of demographic changes in the Town of Leduc and the remainder of the hospital district.

(iii) The Town, in cooperation with the Leduc General Hospital and Nursing Home District #83 Board, will endeavour to attract both general practitioners and medical specialists, to meet the demands of a growing population.

The Town will endeavour to ensure that sufficient space is available for medical and professional offices in accessible locations.

(iv) The Town will continue to encourage

the provision of ambulance service based on a guideline of one vehicle per 10,000 population.

The Town should endeavour to provide fast, safe ambulance routes out of and within the Town, particularly with regard to high risk areas, and to ensure that all streets, avenues, crescents, etc. are clearly designated.

(v) The Town will encourage the Leduc-Strathcona Health Unit to increase its staff as the Town grows in order that required services might keep pace with anticipated population growth.

The following guidelines for staff requirements have been accepted by the Leduc-Strathcona Health Unit.

	Staff/population ratio
public health nurses	1:3,200
public health inspectors	1:15,000
dental hygienists	1:15,000
speech therapists	1:4,000

Based on these guidelines, the Town has projected the following requirements for public health professionals at the Leduc sub-office.

	1986	2001
public health nurses	9-10	15-17
public health inspectors	2	3-4
dental hygienists	2	3-4
speech therapists	7-8	12-14

(vi) The Town will continue to cooperate with the Leduc-Strathcona Health Unit to ensure that adequate space is available for Leduc based on professional and clerical staff.

Estimated space requirements range from 9 - 11 sq. m. (100 - 120 sq. ft.) per employee.

(vii) The Town will endeavour to encourage Alberta Social Services and the Leduc - Strathcona Health Unit to locate, in the Town of Leduc, those personnel whose caseloads are presently concentrated completely or predominately within the Town, or whose services will be required full-time in the near future.

Such personnel include a child protection worker, a public assistance worker and a dental hygienist.

(viii) The Town will endeavour to work in cooperation with publicly and privately sponsored health, education, social and cultural agencies to promote a level of social development services which meets the needs of people who live and work in Leduc.

Examples of preventative mental and physical health services include the Block Parent Program and Family Life Counselling.

(ix) The Town will endeavour to develop and construct the appropriate required facilities and shall initiate suitable programs for the fulfillment of social service needs, either through the actions of the Town alone or in cooperation with, or in support of, other agencies and levels of government.

Examples of such facilities include public housing and facilities for senior citizens.

(x) The Town will endeavour to ensure that the system of social development services will be designed to meet the needs of the existing and anticipated additional population.

The Town should focus particular attention on the needs of 'at-risk' groups such as single-parent families and senior citizens with low-incomes.

(xi) The Town will endeavour to monitor changes in the Town's population in terms of age, life cycle, income and family size, in order to expand and/or modify, when necessary, the various social service programs currently being provided.

(xii) The Town will endeavour to locate the various Alberta Social Service and Preventative Social Service programs where they will be accessible to the greatest number of potential users.

In particular, the Town should pay special attention to those programs aimed at groups for whom cost and transportation factors may act as a deterrent to their use of social services.

(xiii) The Town alone, or in cooperation with other agencies, will, from time to time, review the needs of the people who work and live in Leduc. These needs include, but are not limited to, the following services:

(a) parks and recreation,

(b) continuing education,

(c) health,

(d) libraries,

(e) personal social services,

(f) day care and nursery schools,

(g) public assistance,

(h) cultural services, and

(i) schools.

The Town should review social service needs in conjunction with future General Municipal Plan reviews.

(xiv) The Town will endeavour to provide,

in conjunction with the appropriate agencies, a program of advertising and public education, particularly for new residents, regarding the various health and social services available in Leduc.

2.5 LIBRARY

2.5.1 PREAMBLE

The Town of Leduc Public Library is administered by the Library Board and funded primarily from the Town's general revenue.

The 671 sq. m. (2,200 sq. ft.), 20,000 volume library employs a full-time librarian, a full-time library assistant, a part-time assistant librarian, and two part-time library assistants.

In addition to lending books, the library offers several programs to the community including a reading encouragement summer program for children, crafts programs, sing-alongs and film screenings. The library participates in an inter-library loan arrangement with the Yellowhead Library. Staff take books to the nursing home for the nonambulatory patients. A "Talking Books" tape recording service is available to the sight handicapped.

Although the library bookstock is increasing, crowding will eventually limit bookstock increases. Due to the recent hiring of part-time staff, there are no plans for additional personnel. Generally, the library is overcrowded with too little floor and shelf space. As a result, there is not enough space to carry out many of the library programs.

Information from the 1979 community survey indicates, first,that those people who use the library frequently have found something that they enjoy and will continue to use. However, an increase in the number of books would improve the library service for those people.

Second, those people who either never go to the Town library or visit it very infrequently may make that decision on the basis of its physical limitations and the building's appearance. The existing library is small with inadequate lighting and, operating primarily as a repository for books, offers few, if any, additional services.

It has been projected that by the year 2001, the Town of Leduc will require a library of 1 714 - 2 079 sq. m. (18,540 - 22,380 sq. ft.), containing approximately 75,000 volumes.

As part of general library services, the library should offer lending for home use, a reference and information center, reading guidance, various children's programs, and study discussions. There should be publicity and displays, a telephone information service, interlibrary loans, program planning and photoduplication. A new library or a greatly expanded library should be considered a necessary addition to the services of the Town if Leduc is to continue to develop as a major population growth and industrial development centre within the metropolitan area.

2.5.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

The provision of library services is part of the Town of Leduc's overall goal to *ENSURE THE PROVISION OF PROTECTIVE, HEALTH, RECREATION, EDUCATION AND SOCIAL SERVICES*. The following objectives and policies specify the variety of ways by which the Town will seek to accomplish this goal with respect to library services.

OBJECTIVE:

To provide opportunities for Leduc residents to pursue recreational and cultural activities.

POLICIES:

(i) A new Town of Leduc public library should be located in an area that attracts a large number of people in the course of their daily activities and should reflect the service and program needs of the community.

A new public library should complement other civic centre activities and be conveniently located on or close to a major throughfare and existing or future public transportation.

(ii) Provision should be made, where possible, for easy access by the handicapped to the library and other civic facilities.

(iii) Library facilities should be

attractive and functional in design, furnishings and lighting. Areas of public access should be arranged for easy traffic flow and supervision.

2.6 PARKS, RECREATION AND OPEN SPACE

2.6.1 PREAMBLE

The purposes of the Parks, Recreation and Open Space component of the general municipal plan are:

(i) to determine public attitudes toward existing open spaces and recreation facilities in Leduc; and

(ii) to identify problems and improvement areas respecting the Town's parks and recreation facilities.

The general municipal plan is not intended to supplant other more detailed Town recreation planning documents and in particular the Recreation Master Plan. Rather, the general municipal plan recognizes the importance of more detailed recreation planning and provides a context within which such detailed planning may be undertaken.

Parks quite often become the location of recreation facilities. The popularity of a particular park is, in large part, dependent upon the equipment and facilities which are provided within the park spaces.

The Town of Leduc possesses a wide variety of park spaces and recreation facilities as indicated by Map 2. In addition the Town benefits from its proximity to extensive outdoor recreation areas within the Edmonton metropolitan area.

The community survey results reveal that the majority of households are satisfied with the recreation facilities in the Town. Of those people who are dissatisfied to some degree with recreation facilities, 28.5 percent live in downtown Leduc, 26.8 percent reside in Corinthia Park and 17.9 percent live in Caledonia Park.

Residents' dissatisfaction with recreation facilities is related to the number and type of facilities and whether those facilities meet the recreation needs of the population they are intended to serve.

Successful recreation planning is based on providing suitable facilities which are consistent with

the needs of the population they are intended to serve, while, at the same time, recognizing the constraints involved, such as financial considerations and the timing of development in a new neighbourhood. Notwithstanding these constraints, the type of recreation facilities provided should closely relate to the different age groups within a neighbourhood.

Recreation planning based on the life cycle stage of the neighbourhood and/or age groups can be accomplished in the future by using the community survey data and the civic census. These data can be used to determine the number of persons per household by type of dwelling unit built by the number of bedrooms. In this manner, it is possible to predict more accurately the expected composition of the population in new subdivisions and to monitor the demographic changes in established neighbourhoods. This information provides a more precise means of planning recreation facilities which are directly related to the prospective users.

It is important to note that a neighbourhood is occupied over a period of time and that the new spaces and recreation opportunities which are provided for the convenience of the initial residents of a new neighbourhood are not necessarily going to be the spaces and facilities required by the majority of residents who move in to later phases of the development. Therefore, subdivision proposals should be assessed from these two time dimensions and the Town should negotiate with developers to satisfy these requirements.

The results of the community survey indicate that approximately three-quarters of the households use parks. The following parks are used most frequently: Alexandra/Centennial (38.4 percent), Kinsmen (10 percent), Willow Park (5.7 percent), Corinthia (4.2 percent), Reynar (3.4 percent), South Park playground (2.3 percent), and neighbourhood parks (5.4 percent). In almost all cases, these parks have some recreation facilities such as tennis courts, soccer fields, ball diamonds, or playground equipment. These data indicate that most of the households who use parks are attracted to those that have equipment or recreation facilities.

The community survey data indicate that 68.7 percent of the households are satisfied with parks in the Town, while 12.4 percent are dissatisfied, to some degree. A higher degree of dissatisfaction is evident in Leduc Estates, Willow Park, Linsford Park, and Corinthia Park.

The reason for the dissatisfaction can be ascertained, to some degree, by examining the suggested improvements respecting playspace in the Town. In this regard, 21.1 percent and 18.2 percent of the households in Leduc Estates and Willow Park respectively, suggest that more children's playgrounds should be provided. Moreover, 11.5 percent of those households in Corinthia Park want more equipment in the playgrounds, as do 23.8 percent of the households living in Linsford Park.

The suggested playspace improvements relate to the age of the children living in these neighbourhoods and the availability of recreation equipment and facilities there. For example, 25.5 percent of the children in Linsford Park are preschoolers and 40 percent are between the ages of six and eleven. A similar situation exists in Corinthia Park. However, the park space in each of these neighbourhoods consists primarily of playing fields, open spaces, with only a small complement of playground equipment. Few pieces of the equipment are suitable for preschoolers and the placement of equipment in Corinthia Park requires potential users to walk 180 - 270 metres (200 - 300 yards) in order to use it. A situation has arisen in which the parks in these neighbourhoods do not meet the recreation needs of at least one-third of the children residing there.

It is clear from the community survey data that successful recreation and open space planning is based on several factors including size, location, and design of parks as well as the provision of facilities and equipment which are consistent with the recreation needs of the intended users. This approach requires an understanding of the recreation needs of the residents (or sub-groups) in each neighbourhood and the establishment of objectives related to those needs.

On the basis of the Town's current open space standard of 4 hectares (10 acres) per thousand

residents, Leduc will require between 69 - 80 hectares (170 - 197 acres) of dedicated open space by the year 1986 and 125 - 151 hectares (310 - 373 acres) of dedicated open space by the year 2001. Although in 1979 there were 79 hectares (195 acres) of open space within the Town, approximately 41 hectares (101 acres) were classified as special use areas and were not part of land dedication during subdivision as required by planning legislation.

It is unlikely that the Town's existing ratio of open space to population can be maintained solely through land dedication, especially since The Planning Act, 1977 now encourages reserve land to be used for school purposes.

As part of the Town's Recreation Master Plan update, current open space standards should be reviewed and if necessary other means of increasing the amount of open space within new developments should be considered, such as;

(i) consolidation of lots and neighbourhood parks into larger parks designed with small activity areas,

(ii) purchase of additional park land,

(iii) negotiated development agreements to effectively increase the amount of park space in new areas, and

(iv) joint development of park and school sites.

It is expected that continued population growth of the Edmonton Metropolitan area will increase the demand for outdoor recreation opportunities, particularly for short duration day trips.

Given the future demands for near-urban outdoor recreation opportunities, the Town should develop Telford Lake and the reservoir site for recreation purposes. In addition the Town may wish to investigate the recreation potential of Saunders Lake through the Regional Recreation Board.

2.6.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

The provision of open space areas and recreation facilities is part of the Town of Leduc's overall goal to *ENSURE THE PROVISION OF PROTECTIVE, HEALTH, RECREATION, EDUCATION AND SOCIAL SERVICES.* The following objectives and policies specify the variety of ways by which the Town will seek to accomplish this goal with respect to recreation services.

OBJECTIVE:

To provide opportunities for Leduc residents to pursue recreational activities.

POLICIES:

(i) The Town will focus its attention on the provision of neighbourhood parks and district parks, parts of which are designed and landscaped for individual play and team sports activities.

(ii) The Town will assess and monitor the stage of the life cycle of each neighbourhood and adjust its parks planning accordingly.

Monitoring can be accomplished through the use of civic census information. In this manner, the parks in each neighbourhood can be planned in accordance with the recreation needs of potential users.

(iii) The Town will monitor the changing recreation needs of the community.

(iv) The Town will continue to provide recreation equipment and facilities in accordance with the needs of user groups.

Major picnic parks are required throughout the Town. Moreover, more children's playgrounds should be developed in Leduc Estates and Willow Park, while more children's playground equipment should be added to Linsford Park and Corinthia Park. Furthermore, the Town should begin immedi-

ately to develop the parks it has planned for Caledonia and Leduc Estates.

(v) The Town will provide opportunities for organized and unstructured recreation activities.

(vi) The Town will endeavour to plan programs and facilities for multiple and year-round use.

(vii) The Town will continue to develop methods of efficient supervision, operation and maintenance of facilities and programs.

OBJECTIVE:

To provide sufficient areas suitably located for active and passive recreation pursuits.

POLICIES:

(i) The Town will require developers to provide recreation areas and facilities for prospective residents.

(ii) The Town will stage the construction of recreation areas and facilities in newly developed areas to correspond with the timing of residential construction.

(iii) The Town will acquire sufficient lands for neighbourhood and Town active and passive recreation areas.

The Town will endeavour to secure at least 2 hectares (5 acres) of land per thousand residents in each new neighbourhood plan area. It must be recognized, however, that this is in part a matter for negotiation between the Town and the Board of Education, County of Leduc No. 25 and is also affected by the public reserve provisions of The Planning Act, 1977. The Town will also endeavour to maintain a standard of 2 hectares (5 acres) of open space per thousand residents exclusive of the preceding requirement for neighbourhood open space.

(iv) The Town will endeavour to co-operate with other municipalities in the provision of regional scale recreation facilities.

(v) The Town will continue to investigate ways of improving the recreational suitability of Telford Lake.

(vi) The Town will endeavour to protect certain lands, which have open space or recreation potential, in the vicinity of Telford Lake.

Establishment of environmental reserve areas should be preceded by an assessment of topography and soil conditions, vegetation, wildlife and their habitat, the location of drainage courses and water bodies, the potential for flooding and any other factors that may render land unsuitable for development in its natural state. The boundaries of the agriculture/open space area adjacent to Telford Lake on Map 3 are conceptual and will be more precisely defined by the Area Structure Plan for the area.

(vii) The Town will assess the recreation and open space potential of lands proposed for public reserve as a result of subdivision.

(viii) The Town will continue to monitor the provision of stormwater ponds as potential areas for recreation and open space in Leduc and will use monitoring information when rendering decisions on proposed subdivisions which contain such ponds.

The Town will also require the increased amounts of reserve permitted by The Planning Act, 1977 as a result of high density development.

(ix) The Town may require applicants applying for high density residential land use to evaluate the capacity of the existing educational and recreational areas and facilities.

The Planning Act, 1977 permits the imposition of a redevelopment levy for the provision of land for park or school or recreation facilities in redevelopment areas.

(x) Neighbourhood and subdivision design will ensure that all parks are easily accessible from the residential areas served and that this access is clearly defined and visible to the public.

(xi) Every park will have sufficient frontage on one or more public roads to allow ease of public access.

OBJECTIVE:

To encourage the proper use of school and Town facilities.

POLICY:

(i) The Town will endeavour to establish joint use agreements with respect to additional schools and monitor the community use of the parks and school facilities to determine the long term viability of this approach to satisfying the Town's parks and recreation needs.

2.7 EDUCATION

2.7.1 PREAMBLE

The provision and location of schools is an important consideration in the Town of Leduc where over sixty percent of the population is comprised of married or single parent families with children. Population projections suggest that, while proportions will decline slightly, the actual number of preschool, elementary, junior high and senior high school students will increase.

To date, the rapid growth, and the directions of that growth, have resulted in a situation where elementary schools are accepting students (other than rural students) from outside their respective neighbourhoods. In some cases, young children must cross major transportation routes; in others, elementary school children are bussed to the nearest school that can accommodate them.

In the older, more stable sections of Leduc, changes in the age and life cycle characteristics make impractical large-scale solutions to existing problems (such as construction of one or more new schools). Renovations and expansion of existing facilities in such neighbourhoods may be sufficient.

Several new residential areas are now being developed (South Park, Caledonia Park and Leduc Estates), and a number of areas have been identified as future residential expansion areas. Since pupil generation is partly related to the rate of housing development and the housing mix, the Town is in a position to assist the School Board in planning new schools by determining in advance the rate and type of residential development.

As part of the General Municipal Plan program, potential school requirements (in terms of the number of schools and the number of classrooms) for the residential expansion areas under various development assumptions were calculated, as were the populations and neighbourhood areas necessary to support schools of various sizes. That information will be used in further discussions with school authorities.

The location of school sites, particularly

elementry schools, requires consideration of a variety of factors including:

(i) number, type and location of housing units;

(ii) neighbourhood size, in terms of population, area and density;

(iii) existing and potential hazards;

(iv) the transportation network;

(v) pedestrian access routes;

(vi) recreation facilities, parks and open space; and

(vii) development of other land uses.

The Town recognizes that the primary responsibility for school planning lies with the school authorities; accordingly, the Town will continue to cooperate with those agencies in order to assist in meeting the educational needs of Town residents.

2.7.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

The matter of education is a part of the Town's overall goal to *ENSURE THE PROVISION OF PROTECTIVE, HEALTH, RECREATION, EDUCATION AND SOCIAL SERVICES AND FACILITIES WHICH WILL MEET THE NEEDS OF THE TOWN'S EXISTING AND PROSPECTIVE RESIDENTS.* The following objectives and policies specify the variety of ways by which the Town will seek to accomplish this goal.

OBJECTIVE:

To provide sites of suitable size and in suitable locations for public and semi-public facilities.

POLICIES:

(i) The Town of Leduc, in conjunction with the County of Leduc No. 25 Board of Education and the Leduc

Roman Catholic School District No. 132, will endeavour to:

(a) monitor changes in the Town's population (and, if possible, in the County portion of the Leduc School Attendance Area) with respect to age, sex and marital status of each household member.

(b) monitor population movements, both within and from without the Town, through the use of civic census information.

(ii) The Town, in cooperation with the County of Leduc No. 25 Board of Education and the Leduc Roman Catholic School District No. 132, will endeavour to locate elementary school sites so that young children do not have to cross major traffic arteries or other physical or man-made barriers.

Elementary schools should be located in neighbourhoods of sufficient size so that elementary students do not have to cross major transportation routes on their journey to and from school. Junior and senior high schools should be situated in accessible locations, on or near a major arterial roadway (other than a major highway or truck route) or collector road.

Schools should be located so as to avoid areas of distraction, noise, hazard and barriers to student movement such as large commercial and industrial areas.

(iii) Each neighbourhood will be of sufficient size to support an elementary school.

(iv) The Town will ensure that school sites are located so as to minimize walking distances.

The Town considers 1.2 kilometres (.75 miles) to be the maximum walking distance from home to a neighbourhood elementary school.

Pedestrian walkways, sidewalks, traffic lights, crosswalks, footbridges and bicycle routes should be incorporated, where necessary, in the neighbourhood design to reduce lengthy walking distances and to ensure safe routes for children travelling to and from elementary schools.

(v) The Town, through the provision of demographic information and development plans, will assist the County of Leduc, No. 25 Board of Education and the Leduc Roman Catholic School District in determining the timing and location of new school construction.

The Town will encourage the appropriate school authorities to periodically update the student generation statistics prepared during the General Municipal Plan program.

Regular updating of demographic information and assessment of development plans will assist in ensuring that a population base, sufficient to support the timely development of efficiently sized schools, will exist within neighbourhoods and groups of neighbourhoods.

Temporary classrooms (portables) should be considered as one means of providing schools as they are needed and of avoiding the bussing of students to elementary schools.

(vi) The Town, in conjunction with the County of Leduc No. 25 Board of Education and the Separate School District Board No. 132, will endeavour to provide suitably sized elementary school sites in new residential areas.

Elementary school sites should be 1.2 hectares (3 acres) in size. Two hectares (5 acres) of municipal reserve should be available adjacent to the school grounds.

(vii) In residential areas which do not require additional school space, the Town will cooperate with the appropriate agencies with respect to:

(a) planning of facilities by providing demographic statistics, and

(b) utilizing excess classroom space and other facilities for other types of educational or community use.

(viii) The Town will endeavour, through appropriate subdivision design, to avoid the need for bussing elementary students.

2.8 COMMUNITY DEVELOPMENT

2.8.1 PREAMBLE

The term community development, in the context of the General Municipal Plan, refers to resident interaction and participation in civic affairs, leisure activities, fraternal organizations and volunteer activities, as well as minimizing the negative social impacts of population and economic growth.

Leduc is a relatively stable community. For example, 44.1 percent of the households have lived in Leduc for more than five years, while only 14.5 percent have resided in the community for less than one year. In addition, almost three-quarters of the households express the desire to remain in Leduc and/or in their present residence, while only 17.7 percent indicate that they are "very likely" to move in the next twelve months. As mentioned previously, approximately half of the households are employed in the Town or its immediate environs and most Leduc residents shop in the Town for local goods and services.

General Municipal Plan research has determined that 23.5 percent of the households know more than half of the adults in their neighbourhood, while approximately 50 percent of the residents know "almost half" or "less than half" of their neighbours. Only 27.5 percent of Town residents (half of whom are singles or couples with no children) do not know any of their neighbours.

Leduc residents are interested in participating in civic affairs. For example, 82.3 percent of the households think that the Town should encourage greater citizen involvement in decisions concerning major industrial or residential developments. In this regard, the best methods of citizen participation include "attending council meetings" (23.9 percent), "public meetings/hearings" (24.8 percent) and "surveys/opinion polls" (13.9 percent).

More than half of Leduc's households are involved with a community organization. Of those who belong to a community organization, 36.9 percent have joined a sports/recreation group, 26.4

percent belong to a service club and 19.5 percent participate in a church affiliated group. The vast majority of these organizations are located in the Town (76 percent), and reinforce the Town's strong community identity.

In addition to their participation in community organizations, approximately 27 percent of the households are involved in volunteer work in the Town. Half of these people volunteer their time for children's activities such as sports (10.4 percent), and school/PTA/Block Parent programs (6.3 percent). Other volunteer commitments which are supported include church activities (10.4 percent), fund raising (10.4 percent) and various community activities (7.3 percent). The average time spent each month in volunteer activities is 9.3 hours.

As previously mentioned another dimension of social development is minimizing the social impacts of future Town growth. This is particularly important in a community such as Leduc which accepts its role as a major population and industrial growth centre and wishes to maintain its many existing positive community attributes. Social impact assessment has been developed as a tool for identifying the unintended, as well as the intended effects of development on individuals and groups of people in a community.

The value of social impact assessment lies in its capacity for identifying the multitude of factors which should be considered by decision-makers in the approval process. Both positive and negative effects may be uncovered. Previously unthought of connections between physical changes and groups of people are established. Most importantly, the interests of all groups in a community, not just those most directly affected, can be taken into account. By identifying effects, connections within society, and the interests of community members, social impact assessment can be a valuable aid to decision-makers. Through its use, decision-makers may assess the capacity of a development proposal to conform to the goals and objectives of the community.

Social impact assessment consists of the following five key elements.

1. Profiling:
   - baseline information and descriptive statistics on the community are provided.

2. Projecting:
   - probable changes and impacts resulting from development are forecasted. These are identified through literature searches to uncover experiences with similar developments elsewhere. Another popular method is the use of with/without scenarios to establish whether forecasted changes are likely to occur even if development does not take place.

3. Assessment:
   - the magnitude of the impacts are evaluated. They may be sorted according to a number categories, including the following: reversible/irreversible, short term/long term, direct/indirect, positive/negative, temporary/permanent.

4. Evaluation:
   - the effects of the impacts on the community are estimated by measuring them against the goals and values of the community as described by the general municipal plan and other supporting documentation.

5. Mitigation:
   - methods of reducing or eliminating negative impacts are sought.

As previously mentioned, the majority of Leduc households favour Town growth. The advantages of growth most often cited by Leduc households include more jobs, better shopping, and improved business. The disadvantages of growth most often cited include more crime, a more impersonal community and more traffic. These can be considered some of the positive and negative impacts of growth as identified by the community.

The Town recognizes that potential negative social impacts may result from accommodating growth by attending only to the physical needs of the population through the provision of housing, roads and

necessary utilities systems, while neglecting, in the short term, education, recreation, and health needs as well as required protective services. It is possible to identify some of these impacts by monitoring the rate of growth, phasing in new services as people move into the community, and matching these services with the needs of the expected population.

2.8.2 MUNICIPAL GOALS, OBJECTIVES AND POLICIES

It is the goal of the Town of Leduc to *ENCOURAGE SOCIAL INTERACTION AND CITIZEN PARTICIPATION IN CIVIC AFFAIRS*. The following objectives and policies specify the variety of ways by which the Town will seek to accomplish this goal.

OBJECTIVE:

To provide forums for community participation in civic affairs.

POLICIES:

(i) To encourage public participation the Town will:

(a) continue to make public the procedures for the evaluation of development proposals;

(b) consider, where appropriate, the following variables when assessing development proposals: needs and values of residents, life styles predominant in an area, privacy, duration of residence, use and location of space, possible effect on mobility rates, provision of adequate community facilities and possible pollution;

(c) where appropriate, involve the public in the evaluation of development proposals;

(d) continue to seek citizens'

views on the development of Leduc through surveys and other public participation processes; and

(e) allow sufficient time for citizens to make their views known.

OBJECTIVE:

To minimize the negative social impacts of development.

POLICIES:

(i) The Town will endeavour to review and plan for the improvement of social conditions and social development services.

(ii) The Town may request a social impact assessment report outlining the groups likely to be affected by major development proposals, the project's positive and negative effects, and ways of minimizing the negative effects of the development prior to granting approval.

(iii) The Town may require that new development in the Town meet reasonable standards for social development services.

Examples of social development services include education and recreation facilities and programs.

(iv) Where redevelopment takes place, the Town will endeavour to ensure that the dislocation of people, housing and services is minimized and adequate provision is made, if necessary, to satisfactorily relocate people and services.

(v) The Town may require an architectural program to be submitted with a building permit application for commercial, industrial, and multiple family developments.

The proposed contents of the architectural program should be reviewed with Town staff prior to the architectural program being prepared.

Architectural programming may be defined as the process by which criteria are developed for the design of any physical environment. This process is aimed at ensuring that client and user expectations for the environment are feasible and understood. In more specific terms, the most common goal of programming is the preparation of written and graphic directives to the designer. Often, however, the results of programming are utilized to evaluate project feasibility.

Specific programming concerns vary according to the nature of the project and the needs of the client. However, a finished program document typically consists of some combination of the following:

(a) site criteria and analysis,

(b) a description of the type of occupancies,

(c) specifications of the nature and size of spaces required,

(d) design rationale, and

(e) design options.

In order that creative designs can be implemented, suitable flexibility must be built into the Town's Land Use Bylaw.

Part 3

MUNICIPAL FINANCE

PART 3

MUNICIPAL FINANCE

The extent and level of public services which can be provided by a municipality generally depend on the amount of revenue the municipality is able to collect.

The per capita revenue of the Town of Leduc increased between 1974 and 1978 from $192 to $367 (a 91.6 percent increase). In 1978 per capita revenue amounted to 85.4 percent of the average for the selected Edmonton Region municipalities. Leduc's 1979 financial year was quite exceptional because of the Provincial Debt Reduction Program. In that year the per capita revenue of the Town increased to $950.

Leduc's main revenue source between 1974 and 1978 was Taxation (51.4 to 64.6 percent of total revenue) followed by the category of Transfers (14.6 to 31 percent of total revenue), Other Revenue from Own Sources (7.3 to 13.3 percent of total revenue), Sales of Goods and Services (5.8 to 8.4 percent of total revenue) and Services Provided to Other Governments (generally below 1 percent of total revenue).

Municipal expenditures generally reflect the amount and quality of public goods and services supplied and their costs. The per capita expenditures of Leduc increased from $190 in 1974 to $364 in 1978 (a 91 percent rise) and then to $939 in 1979 (an additional 158 percent rise). The large increase in both total and per capita expenditures between 1978 and 1979 was mainly due to the debt reducing outlays and reserve allocations made possible by the Provincial Debt Reduction Program. In 1978 Leduc's per capita expenditures were second lowest among the selected regional municipalities (84.7 percent of their average level).

Per capita expenditures on:

General Government increased from $21.70 in 1974 to $37.60 in 1978 (a 73.8 percent increase) and then to $56 in 1979 (a 49.1 percent increase);

Protection Services increased from $17.10 in 1974 to $31.10 in 1978 (an 81.7 percent increase) and then to $34.10 in 1979 (a 9.5 percent increase);

Transportation increased from $23.90 in 1974 to $41.80 in 1978 (a 75.3 percent increase) and then to $55.20 in 1979 (a 31.9 percent increase);

Environmental Health Services increased from $11.60 in 1974

to $20.20 in 1978 (a 73.4 percent increase) and then declined slightly to $19.70 in 1979;

Public Health and Welfare increased from $1.80 in 1974 to $9.90 in 1978 (a 450 percent increase and then to $13.90 in 1979 (a 40.3 percent increase);

Environmental Development Services increased from zero between 1974 and 1976 to $2.10 in 1978 and then declined slightly to $1.80 in 1979;

Recreation and Cultural Services increased from $21.40 in 1974 to $31.50 in 1978 (a 47.2 percent increase) and to $38.20 in 1979 (a 21.4 percent increase);

Debt Charges increased from $31.70 in 1974 to $55.00 in 1978 (a 73.5 percent increase) and then to $204.40 in 1979. The 1979 increase was mainly due to stepped-up debt repayments brought about by the Provincial Debt Reduction Program;

Transfers to Own Reserves, Funds and Agencies increased from $33.50 in 1974 to $47.70 in 1978 (a 42.7 percent increase) and then to $392.90 in 1979. The 1979 increase reflects the use by the municipality of the Provincial Debt Reduction Program grants for capital spending and creation of reserves for future expenditures;

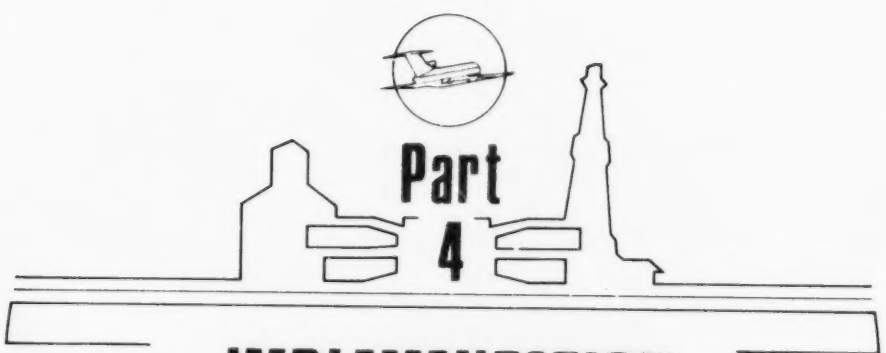
Unconditional Transfers to Other Governments and their Agencies increased from $27.60 in 1974 to $87.20 in 1978 (a 216 percent increase) and then to $122.60 in 1979 (a 40.6 percent increase).

Leduc's per capita General Debt increased from $231 in 1974 to $556 in 1978 (a 141 percent increase) and generally exceeded in this period the average level of the selected regional municipalities (by 12.4 percent in 1978).

The per capita equalized assessment of the Town of Leduc, which is a measure of the Town's fiscal capacity, increased from $2,701 in 1975 to $3,762 in 1979 (a 39.3 percent increase) and then to $5,306 in 1980. In the period under review Leduc's per capita equalized assessment generally fluctuated around the average level of the selected regional municipalities. In 1980 it exceeded this average by seven percent.

Leduc's per capita residential taxation increased from $76.70 in 1974 to $147.50 in 1979 (a 92.3 percent increase). The 1979 figure was equal to the median value of the selected regional municipalities.

The size of the non residential portion of the municipality's total assessment is an important indicator of its financial strength. After a decline to 20.7 percent in 1977 the proportion of Leduc's nonresidential assessment increased to 27.9 percent of the total Town assessment in 1979. This approximated the median value for the selected regional municipalities. A further improvement in this proportion has been projected for the future. According to the conservative projection, the nonresidential share of Leduc's total assessment can be expected to increase to 31.6 percent by 1991. The optimistic projection anticipates this share to rise to as high as 39.6 percent by 1991.



Part 4

IMPLEMENTATION

PART 4

IMPLEMENTATION

The generally high level of resident satisfaction with the Town as a place to live is a tribute to the success of Town actions and both public and private planning and development efforts.

This General Municipal Plan is neither the beginning nor the end of the Town's planning but rather is an important element of the Town's overall growth management strategy. The General Municipal Plan's major contribution to growth management are the goals, objectives and policies to guide future public service and land development decisions in a manner which will meet the needs and desires of the Town's existing and prospective residents.

Growth management should be seen as a continuous process which includes implementing and revising as necessary the General Municipal Plan. Revisions to the plan will be necessary because the management of the Town's development should recognize new development commitments, budget constraints, shifting public and political priorities, and changing market conditions.

Growth management should include several activities. The Council should continue to encourage both the Town's administration and residents to identify issues and opportunities which should be incorporated in growth plans. Specific activities might include but need not be limited to:

(i) recording ongoing land use and development changes with the aid of the land use monitoring system established during the General Municipal Plan program,

(ii) updating information contained in the Public Services background report,

(iii) continuing to conduct an annual civic census,

(iv) periodically conducting a community survey,

(v) maintaining liaison with the variety of groups and agencies responsible for the provision of public services.

Implementation of the General Municipal Plan and fulfillment of the requirements of The Planning Act, 1977 will require

the Town to adopt a Land Use Bylaw. The Land Use Bylaw may prohibit or regulate and control the use and development of land and buildings within the municipality. The Land Use Bylaw will provide the principal day-to-day mechanism for implementing the General Municipal Plan. It is recognized, however, that changes to the existing land use pattern will not be immediate and that the interests of specific groups must be taken into account when preparing the Land Use Bylaw.

All underdeveloped areas of the Town are considered potentially suitable for the preparation of area structure plans. In addition to the requirements specified by The Planning Act, 1977, area structure plans should indicate explicitly how the Town's development policies will be met and if not, the detailed reasons for any variance.

Map 10 indicates the proposed boundary of the central area study. Initiation of the central area study should be considered a high priority.

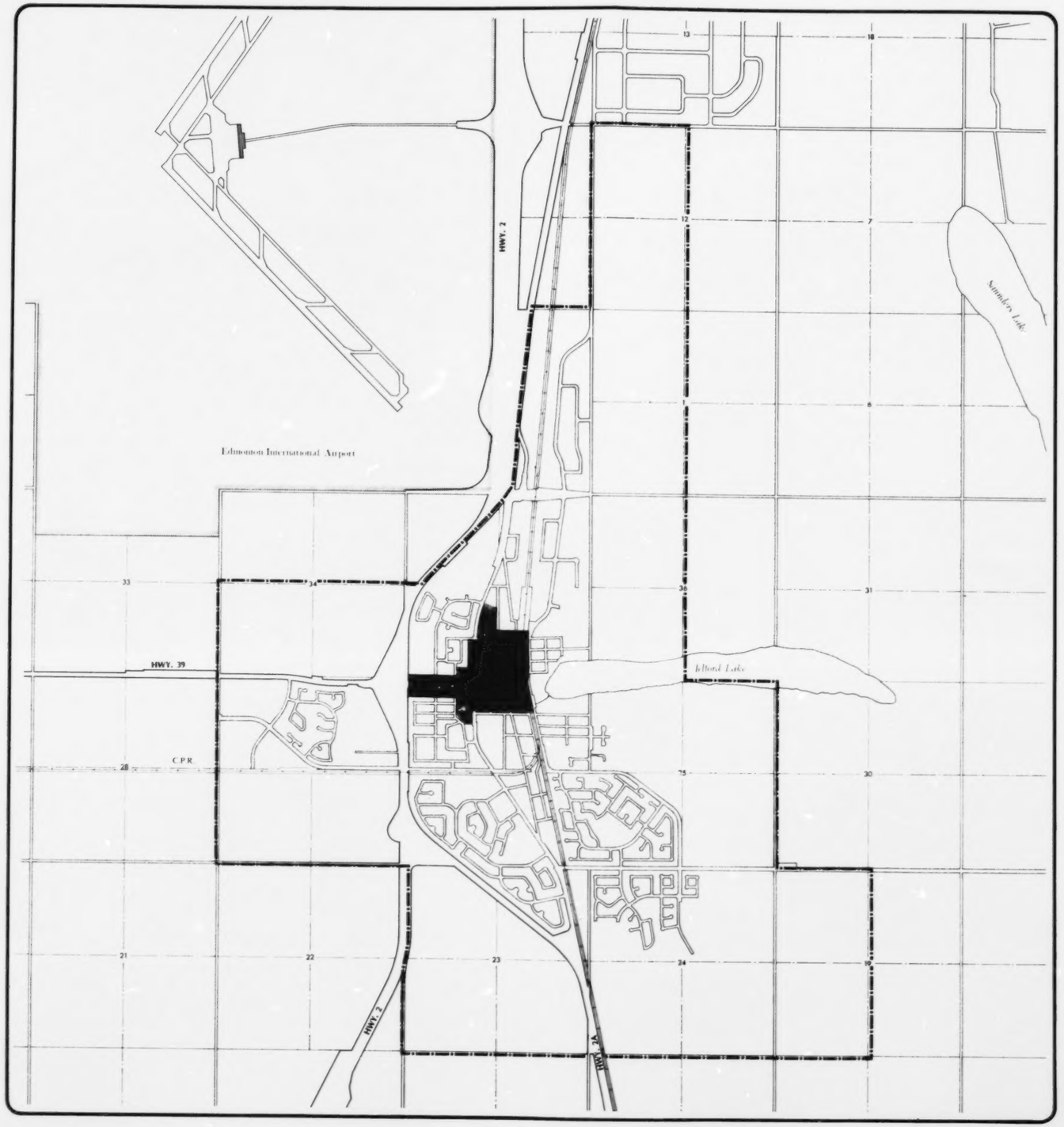
The Town's recreation master plan will continue to provide a schedule of necessary parks and recreation improvements. The General Municipal Plan identifies a number of issues which should be considered by future recreation master plan studies.

Annexation of additional land to the Town will be required in order to accommodate future growth. The General Municipal Plan indicates desirable expansion areas. The Town should review annexation proposals in terms of the policies contained within the General Municipal Plan and such other matters as the Council considers appropriate.

The General Municipal Plan indicates the major transportation and utilities improvements required to accommodate future Town growth. Future developments should contribute to the evolution of the Town's overall transportation and utilities systems. The Town does not intend to adopt a rigid staging of development but rather will inform those proposing new developments of the costs of development which must be borne by the applicant.

As mentioned by the recent administration study commissioned by the Town, the pressures of significant population growth and economic development may require a civic employee to direct overall planning and industrial development activities. Such an individual may become the nucleus of a planning and development office within the municipal administration as the community continues to mature as a dynamic industrial growth centre within the capital city region.

The Edmonton Regional Planning Commission will continue to provide current planning research services to the Town as requested subject to normal budget limitations.



AREA SUITABLE FOR:

Area Redevelopment Plan

Note: All undeveloped acres of the town are considered potentially suitable for the preparation of an area structure plan.

N

0 .5 1 1.5 2 kilometers

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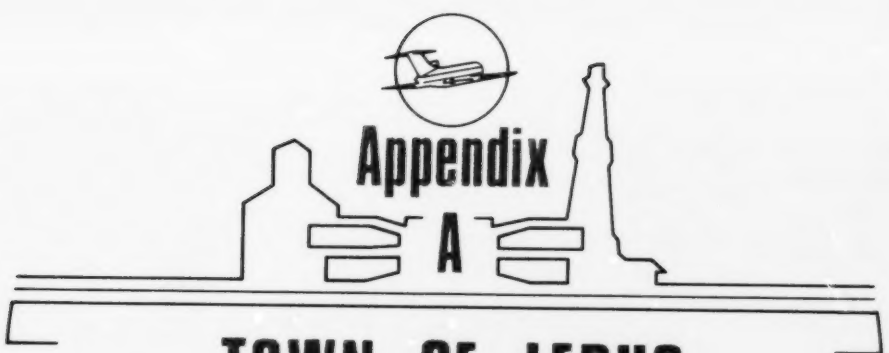
Edmonton Regional Planning Commission

PROPOSED STATUTORY PLAN AREA

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Map 10



TOWN OF LEDUC
GENERAL MUNICIPAL PLAN
RESEARCH PROGRAM and PUBLICATIONS

THE GENERAL MUNICIPAL PLAN RESEARCH PROGRAM

The Town of Leduc General Municipal Plan program was initiated on September 17th, 1979 through resolutions passed by the Town Council.

The program has resulted in a comprehensive analysis of the Town including:

(i) a review of past planning and development in the Town,

(ii) a statistically valid, random sample survey of households to determine residents' attitudes to the Town's existing and future development,

(iii) an analysis of the Town's population growth and economic development prospects,

(iv) an inventory of public services and projections of demand for those services,

(v) an assessment of Town expansion alternatives and an analysis of transportation and utility servicing needs,

(vi) formulation of municipal growth and urban form, economic, housing and neighbourhood design and social policies consistent with residents' desires and Town objectives,

(vii) an analysis of the present financial position of the Town and possible future patterns of revenue and expenditures,

(viii) proposed methods of implementing the General Municipal Plan.

A total of ten reports were prepared by staff and were reviewed, amended and adopted by the Town's General Municipal Plan Committee and Council as information for use in preparing the General Municipal Plan document.

Public participation formed an integral part of the General Municipal Plan program.

The purposes of the public participation program were to:

(i) inform the interested public of the progress of and information obtained from the planning studies,

(ii) provide the opportunity for interested individuals to assist and advise the Town concerning the preparation of the General Municipal Plan,

(iii) obtain statistically valid information from a representational cross section of the public concerning their attitudes to a wide variety of possible issues, and

(iv) provide opportunities for the public to respond to the General Municipal Plan studies and proposals.

The various public participation objectives were fulfilled by a variety of methods including;

(i) establishing the General Municipal Plan Committee composed of councillors and representatives of major civic interest groups,

(ii) preparing, administering and analyzing a comprehensive community survey,

(iii) publishing newspaper supplements and articles describing various aspects of the planning program results,

(iv) hosting public information open houses in order to discuss planning issues with the individuals in attendance,

(v) making available copies of all planning reports,

(vi) requesting the submission of briefs,

(vii) discussing the planning program and studies with civic groups, and

(viii) holding a formal public hearing following first reading of the proposed General Municipal Plan Bylaw.

TOWN OF LEDUC GENERAL MUNICIPAL PLAN PUBLICATIONS

1. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Terms of Reference, ERPC, Edmonton, Alberta; August 1979; 95 pages.

   The Terms of Reference define the purposes and objectives of the General Municipal Plan program and describe in detail the methods to be used in conducting the various general plan studies. Particular attention is devoted to the community survey and its use in formulating municipal development policies.

2. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Synopsis of Past Plans, ERPC, Edmonton, Alberta; October, 1979; 164 pages.

   This report is documentation of information and proposals contained in previous planning studies prepared for either private development interests or on behalf of the Town of Leduc.

3. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Population Growth Prospects, ERPC, Edmonton, Alberta; October 1979; 32 pages.

   This report describes the past and present roles of the Town of Leduc in the Edmonton Metropolitan Area, indicates the major forces which will influence the growth of the Town and projects the possible range of population increase which the Town may expect as well as the likely future characteristics of the population.

4. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Economic Development Prospects, ERPC, Edmonton, Alberta; November 1979; 37 pages.

   This report indicates the future economic forces which will affect the economic development of the Town and estimates the approximate land areas required to accommodate future population growth and economic activities.

5. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Public Services, ERPC, Edmonton, Alberta; November 1979; 58 pages.

   This report inventories and where possible projects future requirements for the Town's major existing non-utility public services.

6. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Community Survey Report, ERPC, Edmonton, Alberta; February, 1980; 50 pages.

This report provides an overview of the results of the extensive community survey questionnaire administered by home interview to ten percent of the Town's households. The questionnaire primarily focused on residents' attitudes to the existing and future development of the Town.

7. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Assessment of Expansion Alternatives, ERPC, Edmonton, Alberta; March 1980; 71 pages.

This report identifies a suggested Town expansion pattern based on an appraisal of land resource, land use, transportation and utilities constraints to Town expansion.

8. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Goals and Objectives Report, ERPC, Edmonton, Alberta; March, 1980; 27 pages.

This report describes a process for identifying goals and objectives and proposes a preliminary set of goals and objectives which reinforce the Town's development towards a satellite industrial centre and which are consistent with the community survey results.

9. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Municipal Growth and Urban Form Policy, ERPC, Edmonton, Alberta; June 1980; 69 pages.

This report proposes municipal policies regarding the amount, rate and characteristics of population growth; the amounts and general locations of residential commercial and industrial development; and the overall utilities and transportation services to accommodate future development.

10. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Housing and Neighbourhood Design Policy Report, ERPC, Edmonton, Alberta; June 1980; 98 pages.

This report discusses the results of the community survey and proposes policy regarding housing needs, desirable neighbourhood attributes, the issue of neighbourhood homogeneity versus heterogeneity, land and energy

conservation and neighbourhood security. The report also includes residential land requirements to the year 1991.

11. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Economic Policy Report, ERPC, Edmonton, Alberta; July 1979; 28 pages.

This report examines the major planning issues related to the Town's future commercial and economic development and suggests appropriate policies for the achievement of the adopted goals and objectives.

12. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Social Policy Report, ERPC, Edmonton, Alberta; July 1980; 130 pages.

This report discusses the results of the community survey and proposes policy regarding protective services; health and social services; parks, recreation, library and education services; and community development.

13. Edmonton Regional Planning Commission, Town of Leduc General Municipal Plan; Municipal Finance, ERPC, Edmonton, Alberta; October 1980; 40 pages.

This report assesses the Town's financial position in the context of local past trends and relative to other municipalities in the metropolitan area.

14. Associated Engineering Services Ltd., Town of Leduc General Municipal Plan; Waterworks and Sewerage, AESL, Edmonton, Alberta; October 1980; 59 pages.

This report identifies cost efficient municipal services for the expansion areas established by previous General Municipal Plan studies.

15. DeLeuw Cather Canada Ltd., Leduc Area Transporation Study, DeLCan, Edmonton, Alberta; May 1981; 94 pages.

This report documents the procedures followed to estimate future land use in the study area and forecast traffic volumes for the 2001 design year. Recommended roadway networks for the design year were developed and roadway improvement implementation programs were presented. The options available for public transit service within the study area were reviewed and the potential for public transit service investigated. For the post-2001 period, a conceptual long term future roadway network for the study area was developed.

BYLAW NUMBER 1422
being a bylaw to adopt the Town of Leduc, General Municipal Plan

TOWN OF LEDUC

BYLAW NUMBER 1422

BEING A BYLAW TO ADOPT THE TOWN OF LEDUC GENERAL MUNICIPAL PLAN

WHEREAS The Planning Act, 1977 requires the Council of a Town having a population of 1,000 or more to adopt a General Municipal Plan Bylaw.

AND WHEREAS the Council of the Town of Leduc has caused to be prepared a General Municipal Plan on the basis of surveys and studies.

NOW THEREFORE, The Council of the Town of Leduc in its open meeting assembled and pursuant to the provisions of The Planning Act, 1977 hereby ENACTS AS FOLLOWS:

1. This Bylaw may be cited as the Town of Leduc General Municipal Plan Bylaw No. 1422.

2. The Town of Leduc General Municipal Plan attached hereto as Schedule "A" to this Bylaw is hereby adopted.

3. This Bylaw comes into full force and effect upon the final passing thereof.

READ a first time this 2nd day of March, A.D. 1981.

READ a second time this 15th day of June, A.D. 1981.

READ a third and final time this 15th day of June, A.D. 1981.

Oscar J. Klak
MAYOR

M. Littman
MUNICIPAL SECRETARY

Attachment

SCHEDULE "A"

BYLAW NO. 1422

Maintain a rate of population growth consistent with the Town's important role as a major industrial and service centre in the Edmonton region.

Encourage the development of an efficient urban pattern, including sufficient expansion areas and associated transportation and utilities systems to accommodate future growth.

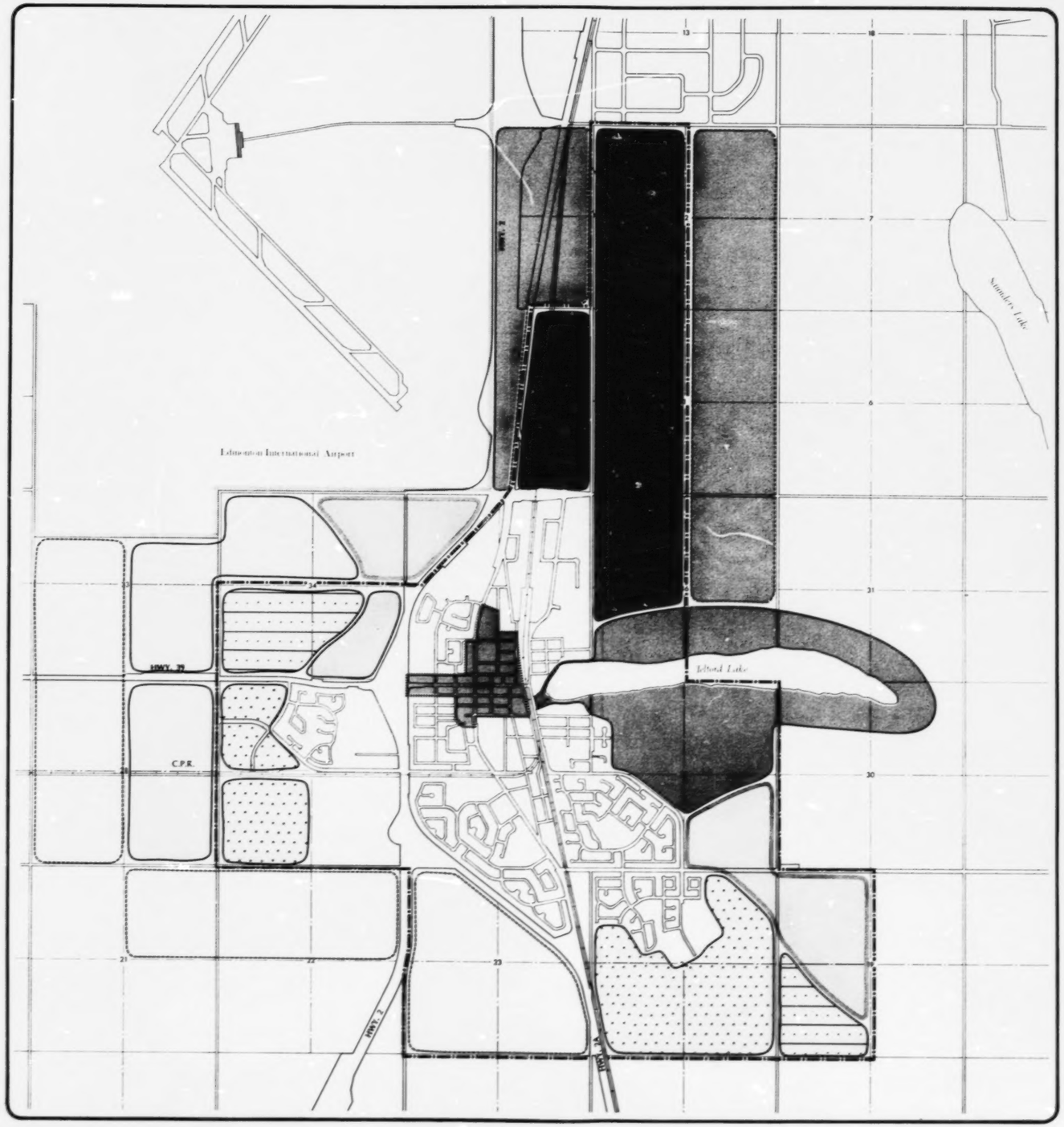
Strengthen the overall commercial and industrial structure of the Town to meet the needs of the expanding community and its role in the Edmonton region.

Encourage the provision of a variety of well designed and affordable types of housing.

Encourage high standards of neighbourhood and site design for all future development and redevelopment.

Ensure the provision of protective, health, recreation, education and social services and facilities which will meet the needs of the Town's existing and prospective residents.

Encourage social interaction and citizen participation in civic affairs.



- Approved Residential
- Short Term Available Residential Expansion Area
- Required Residential Annexation Area
- Alternative Residential Expansion Area
- Expanded Central Business District
- Regional Shopping Centre
- Approved Light Industrial
- Available Industrial Expansion Area
- Industrial Annexation Area
- Agriculture/Open Space
- Agriculture/General Industrial Reserve

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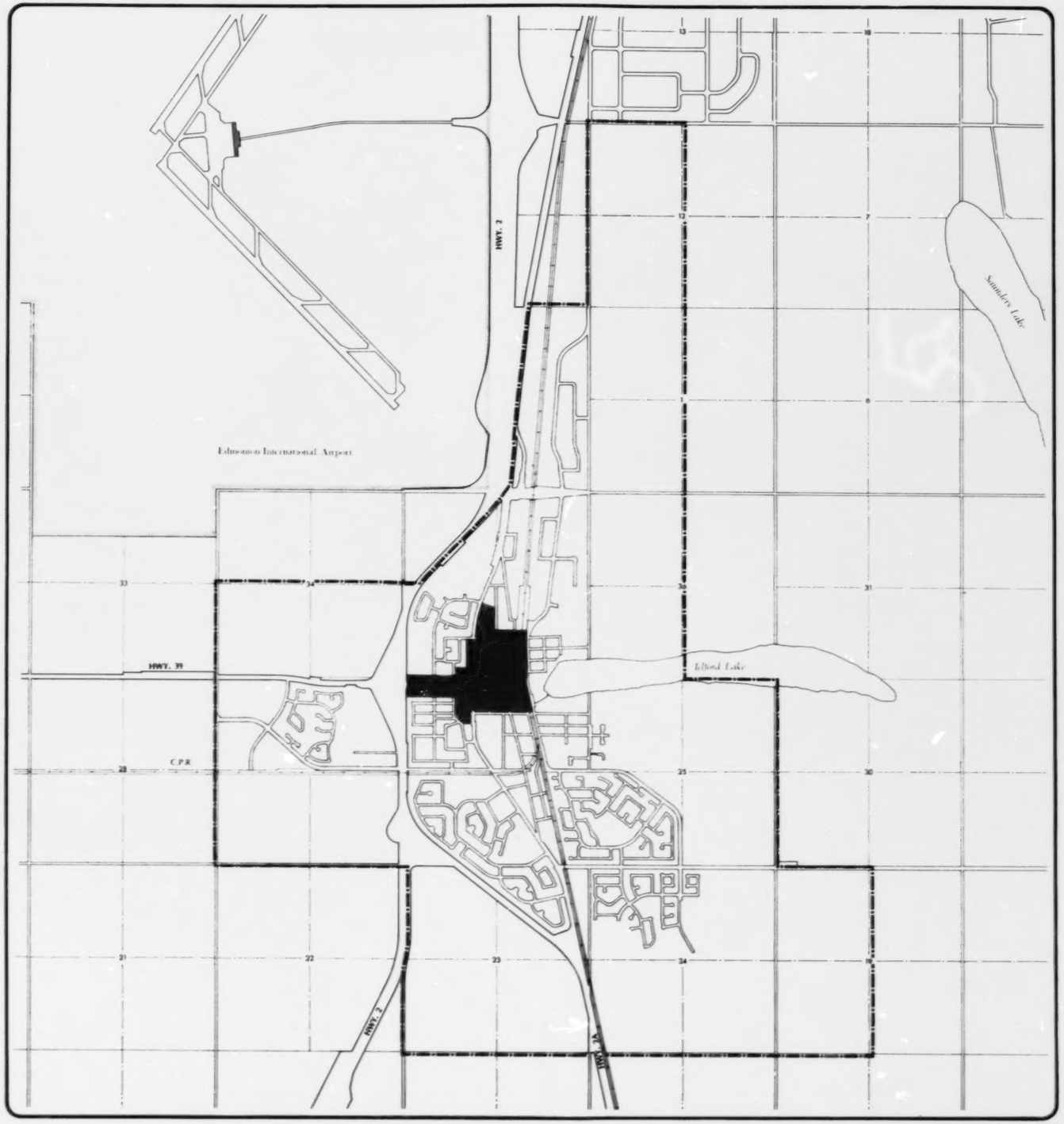
Edmonton Regional Planning Commission

FUTURE URBAN FORM

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Bylaw No. 1422



AREA SUITABLE FOR:

Area Redevelopment Plan

Note: All undeveloped acres of the town are considered potentially suitable for the preparation of an area structure plan.

N

0 .5 1 1.5 2 kilometers

0 .5 1 1.5 miles

Edmonton Regional Planning Commission

PROPOSED STATUTORY PLAN AREA

TOWN OF LEDUC GENERAL MUNICIPAL PLAN

Bylaw No. 1422